

## Photometric Test Report

### Relevant Standards

- ☒ ANSI/IES LM-79-2019
- ☒ ANSI C82.77-2017

Prepared For

**RAB Lighting Inc.**

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Prepared By

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Date: 2025-08-21

Review by:

*Vincent Yuan*

Technical Lead: Vincent Yuan

Issue Date: 2025-08-21

Revised Date: N/A

## 1.0 Test Summary

Wall mount Luminaire					
Requirement Category		Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		1610
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	101.9
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.8
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	6.80
				277V	15.73
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.994
				277V	0.946
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	2725±145	2774
			4 steps	2725±83	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.5
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		62
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		91
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		96
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-4%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		26.5%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U4-G2
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		120.0
(Goniophotometer – Section 4.2)			Non-Worst Case		277.0
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.133
(Goniophotometer – Section 4.2)			Non-Worst Case		0.060
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.8
(Goniophotometer – Section 4.2)			Non-Worst Case		15.7

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-07-28	V1-18B @16W2700K	-	250728006-S1
2	Goniophotometer Test	2025-07-28	V1-18B @16W2700K	-	250728006-S1
3	THD and PF Test	2025-07-28	V1-18B @16W2700K	-	250728006-S1

### Remark (If any):

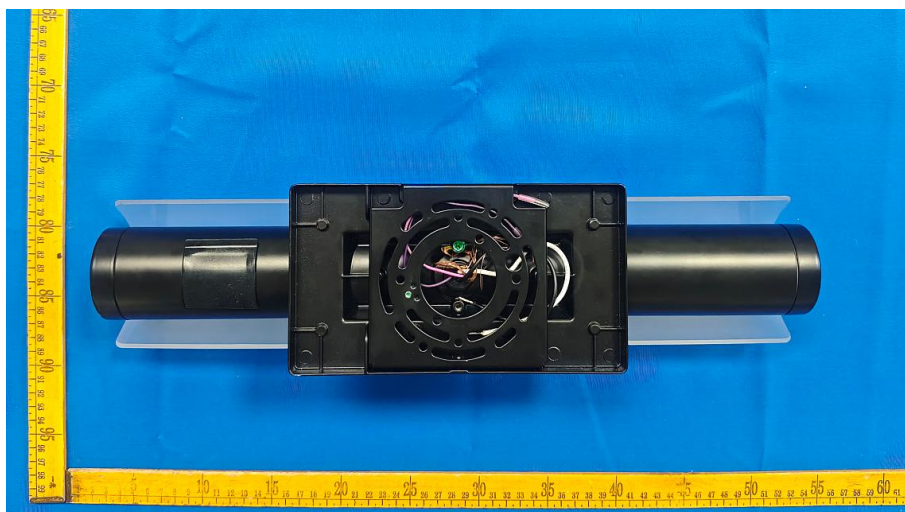
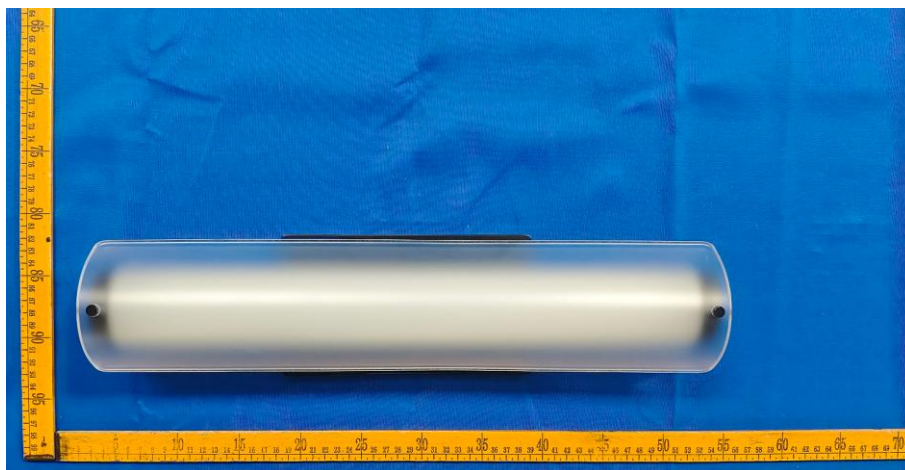
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

### 3.0 Product Description

Luminaire Description: Model No. V1-18B @16W2700K, color tunable from 2700K, 3000K, 3500K, 4000K and 5000K.

Electrical Specification: 120-277Vac, 50/60Hz

#### Photos of Luminaire Characteristics



## 4.0 LM-79 Measurement and Test Results

### 4.1 Integrating Sphere Test

<b>Model No.</b>	V1-18B @16W2700K	<b>Sample ID</b>	250728006-S1
<b>Operate time (Min.)</b>	10	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

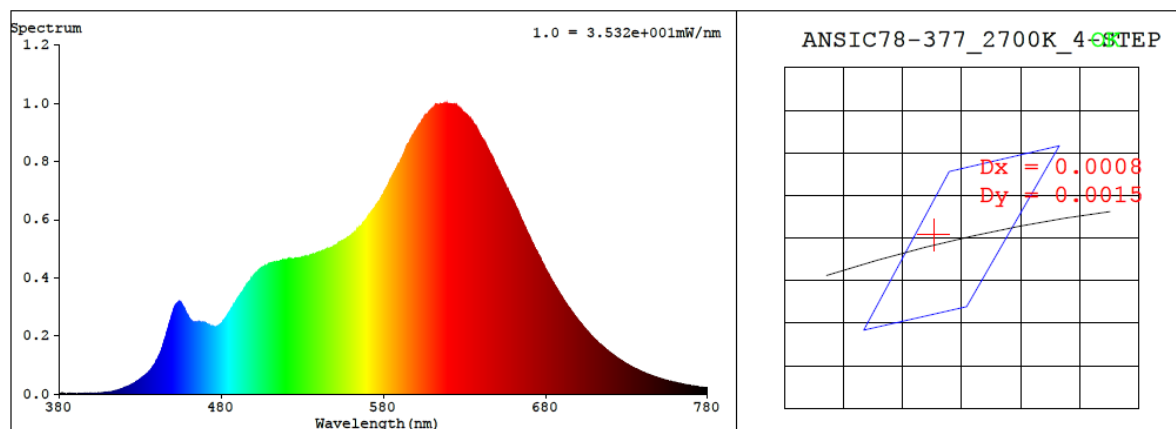
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at <math>25\pm 1^{\circ}\text{C}</math>.</p> <p>The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within <math>\pm 0.2</math> percent under load.</p> <p>The sample was measured using <math>4\pi</math> geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780nm.</p>

### Test Result

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>
120.0	60	0.133	15.8	0.994
277.0	60	0.060	15.7	0.946

<b>CCT (K)</b>	<b>CRI</b>	<b>R9</b>	<b>Duv</b>	<b>SDCM</b>	<b>Rf</b>	<b>Rg</b>	<b>IES Rcs,h1</b>
2774	93.5	62	0.0005	2.4	91	96	-4%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4547$   $y = 0.4107$  /  $u' = 0.2591$   $v' = 0.5266$  ( $duv=4.95e-04$ )

CCT= 2774K Prcp WL:  $L_d=583.7nm$  Purity=59.8%

Peak WL:  $L_p=618nm$  FWHM:  $=126.6nm$  Ratio:R=26.7% G=70.1% B=3.1%

Render Index:  $R_a = 93.5$  AvgR = 91.7 TM30:Rf=91 Rg=97

EEL: 0.13685 A+

R1 =98 R2 =98 R3 =94 R4 =97 R5 =99 R6 =91 R7 =89

R8 =82 R9 =62 R10=94 R11=95 R12=88 R13=99 R14=97 R15=91

## 4.1 Integrating Sphere Test

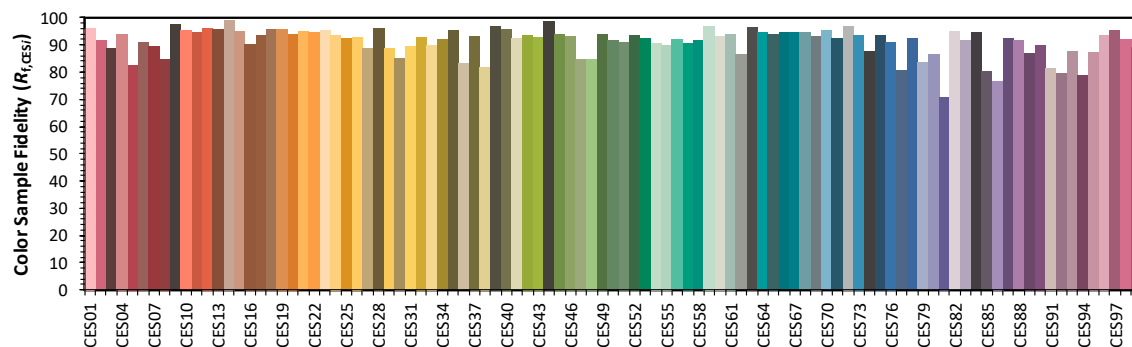
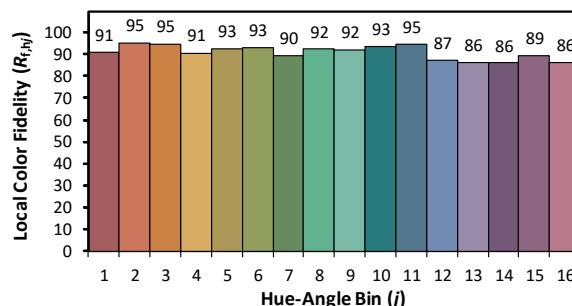
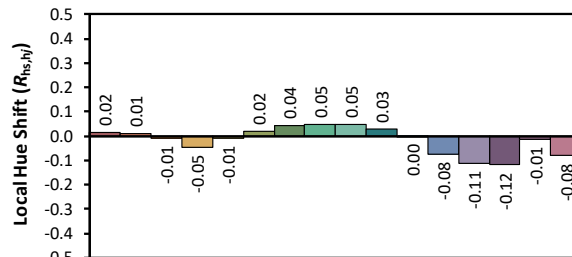
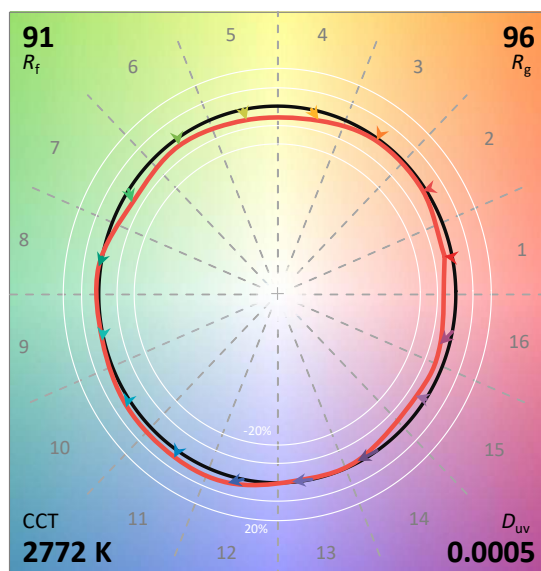
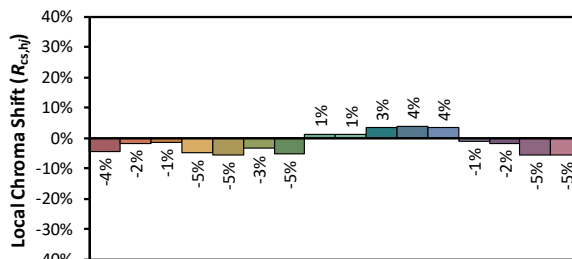
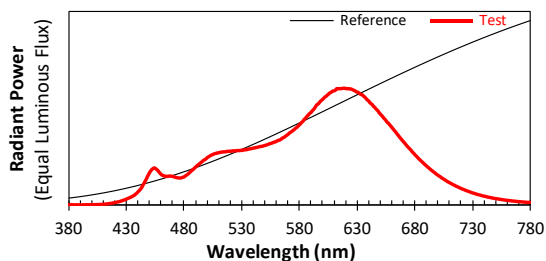
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/8/21

Model: V1-18B @16W2700K



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

$x$  0.4548  
 $y$  0.4106  
 $u'$  0.2592  
 $v'$  0.5266

CIE 13.3-1995  
(CRI)

$R_a$  93  
 $R_g$  62



## 4.1 Integrating Sphere Test

Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	3.40E-06	447	2.21E-04	514	4.55E-04	581	6.98E-04	648	8.06E-04	715	1.66E-04
381	8.00E-07	448	2.42E-04	515	4.55E-04	582	7.09E-04	649	7.90E-04	716	1.60E-04
382	3.20E-06	449	2.61E-04	516	4.56E-04	583	7.18E-04	650	7.79E-04	717	1.56E-04
383	2.00E-06	450	2.79E-04	517	4.59E-04	584	7.33E-04	651	7.68E-04	718	1.51E-04
384	1.00E-06	451	2.93E-04	518	4.60E-04	585	7.41E-04	652	7.57E-04	719	1.46E-04
385	1.30E-06	452	3.06E-04	519	4.60E-04	586	7.54E-04	653	7.45E-04	720	1.42E-04
386	1.60E-06	453	3.12E-04	520	4.60E-04	587	7.64E-04	654	7.34E-04	721	1.38E-04
387	2.10E-06	454	3.18E-04	521	4.61E-04	588	7.76E-04	655	7.22E-04	722	1.34E-04
388	7.00E-07	455	3.12E-04	522	4.64E-04	589	7.86E-04	656	7.08E-04	723	1.30E-04
389	1.40E-06	456	3.04E-04	523	4.64E-04	590	7.93E-04	657	7.01E-04	724	1.26E-04
390	1.30E-06	457	2.97E-04	524	4.63E-04	591	8.07E-04	658	6.88E-04	725	1.22E-04
391	5.00E-07	458	2.83E-04	525	4.64E-04	592	8.16E-04	659	6.77E-04	726	1.18E-04
392	1.70E-06	459	2.72E-04	526	4.67E-04	593	8.29E-04	660	6.64E-04	727	1.15E-04
393	1.50E-06	460	2.61E-04	527	4.65E-04	594	8.44E-04	661	6.53E-04	728	1.11E-04
394	1.30E-06	461	2.55E-04	528	4.67E-04	595	8.58E-04	662	6.40E-04	729	1.07E-04
395	2.10E-06	462	2.51E-04	529	4.68E-04	596	8.65E-04	663	6.29E-04	730	1.04E-04
396	1.90E-06	463	2.48E-04	530	4.67E-04	597	8.75E-04	664	6.15E-04	731	1.01E-04
397	2.00E-06	464	2.47E-04	531	4.70E-04	598	8.87E-04	665	6.03E-04	732	9.75E-05
398	2.00E-06	465	2.45E-04	532	4.73E-04	599	8.96E-04	666	5.91E-04	733	9.42E-05
399	2.70E-06	466	2.46E-04	533	4.72E-04	600	9.05E-04	667	5.77E-04	734	9.12E-05
400	2.90E-06	467	2.48E-04	534	4.74E-04	601	9.14E-04	668	5.66E-04	735	8.88E-05
401	2.20E-06	468	2.48E-04	535	4.76E-04	602	9.25E-04	669	5.54E-04	736	8.62E-05
402	3.20E-06	469	2.46E-04	536	4.80E-04	603	9.31E-04	670	5.43E-04	737	8.39E-05
403	3.10E-06	470	2.45E-04	537	4.80E-04	604	9.41E-04	671	5.31E-04	738	8.05E-05
404	3.60E-06	471	2.41E-04	538	4.83E-04	605	9.48E-04	672	5.19E-04	739	7.77E-05
405	3.70E-06	472	2.39E-04	539	4.86E-04	606	9.59E-04	673	5.07E-04	740	7.55E-05
406	4.40E-06	473	2.35E-04	540	4.87E-04	607	9.62E-04	674	4.96E-04	741	7.38E-05
407	4.50E-06	474	2.33E-04	541	4.89E-04	608	9.71E-04	675	4.86E-04	742	7.08E-05
408	5.30E-06	475	2.32E-04	542	4.92E-04	609	9.75E-04	676	4.76E-04	743	6.87E-05
409	5.80E-06	476	2.31E-04	543	4.92E-04	610	9.78E-04	677	4.64E-04	744	6.65E-05
410	6.70E-06	477	2.31E-04	544	4.97E-04	611	9.82E-04	678	4.52E-04	745	6.47E-05
411	7.70E-06	478	2.35E-04	545	4.98E-04	612	9.95E-04	679	4.43E-04	746	6.24E-05
412	8.10E-06	479	2.39E-04	546	5.01E-04	613	9.96E-04	680	4.30E-04	747	6.05E-05
413	9.40E-06	480	2.41E-04	547	5.01E-04	614	9.95E-04	681	4.21E-04	748	5.84E-05
414	1.10E-05	481	2.49E-04	548	5.04E-04	615	9.97E-04	682	4.11E-04	749	5.65E-05
415	1.22E-05	482	2.57E-04	549	5.07E-04	616	9.96E-04	683	4.00E-04	750	5.47E-05
416	1.34E-05	483	2.63E-04	550	5.10E-04	617	9.98E-04	684	3.90E-04	751	5.34E-05
417	1.50E-05	484	2.72E-04	551	5.13E-04	618	9.99E-04	685	3.81E-04	752	5.18E-05
418	1.73E-05	485	2.81E-04	552	5.17E-04	619	1.00E-03	686	3.71E-04	753	5.03E-05
419	1.89E-05	486	2.92E-04	553	5.20E-04	620	9.96E-04	687	3.62E-04	754	4.84E-05
420	2.10E-05	487	2.98E-04	554	5.25E-04	621	9.97E-04	688	3.53E-04	755	4.72E-05
421	2.28E-05	488	3.08E-04	555	5.27E-04	622	9.95E-04	689	3.43E-04	756	4.52E-05
422	2.57E-05	489	3.17E-04	556	5.31E-04	623	9.95E-04	690	3.35E-04	757	4.41E-05
423	2.77E-05	490	3.27E-04	557	5.34E-04	624	9.94E-04	691	3.25E-04	758	4.25E-05
424	3.01E-05	491	3.36E-04	558	5.39E-04	625	9.91E-04	692	3.18E-04	759	4.09E-05
425	3.34E-05	492	3.44E-04	559	5.41E-04	626	9.87E-04	693	3.09E-04	760	3.99E-05
426	3.67E-05	493	3.50E-04	560	5.46E-04	627	9.82E-04	694	3.00E-04	761	3.87E-05
427	3.97E-05	494	3.60E-04	561	5.51E-04	628	9.78E-04	695	2.93E-04	762	3.75E-05
428	4.37E-05	495	3.67E-04	562	5.54E-04	629	9.70E-04	696	2.85E-04	763	3.68E-05
429	4.72E-05	496	3.77E-04	563	5.58E-04	630	9.66E-04	697	2.78E-04	764	3.46E-05
430	5.17E-05	497	3.84E-04	564	5.64E-04	631	9.63E-04	698	2.69E-04	765	3.40E-05
431	5.59E-05	498	3.89E-04	565	5.73E-04	632	9.56E-04	699	2.61E-04	766	3.33E-05
432	6.03E-05	499	3.97E-04	566	5.76E-04	633	9.47E-04	700	2.55E-04	767	3.19E-05
433	6.44E-05	500	4.06E-04	567	5.83E-04	634	9.45E-04	701	2.48E-04	768	3.11E-05
434	6.91E-05	501	4.13E-04	568	5.91E-04	635	9.37E-04	702	2.42E-04	769	3.02E-05
435	7.42E-05	502	4.18E-04	569	5.98E-04	636	9.28E-04	703	2.34E-04	770	2.88E-05
436	7.96E-05	503	4.25E-04	570	6.05E-04	637	9.20E-04	704	2.27E-04	771	2.83E-05
437	8.66E-05	504	4.29E-04	571	6.14E-04	638	9.07E-04	705	2.22E-04	772	2.71E-05
438	9.48E-05	505	4.34E-04	572	6.22E-04	639	8.97E-04	706	2.16E-04	773	2.63E-05
439	1.04E-04	506	4.38E-04	573	6.29E-04	640	8.90E-04	707	2.09E-04	774	2.55E-05
440	1.14E-04	507	4.41E-04	574	6.36E-04	641	8.76E-04	708	2.02E-04	775	2.45E-05
441	1.24E-04	508	4.42E-04	575	6.43E-04	642	8.67E-04	709	1.97E-04	776	2.42E-05
442	1.36E-04	509	4.47E-04	576	6.52E-04	643	8.60E-04	710	1.91E-04	777	2.33E-05
443	1.49E-04	510	4.48E-04	577	6.60E-04	644	8.46E-04	711	1.86E-04	778	2.23E-05
444	1.67E-04	511	4.51E-04	578	6.68E-04	645	8.37E-04	712	1.81E-04	779	2.22E-05
445	1.85E-04	512	4.52E-04	579	6.79E-04	646	8.26E-04	713	1.75E-04	780	2.23E-05
446	2.03E-04	513	4.54E-04	580	6.87E-04	647	8.15E-04	714	1.70E-04	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

<b>Model No.</b>	V1-18B @16W2700K	<b>Sample ID</b>	250728006-S1
<b>Operate time (Min.)</b>	30	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	25.2	<b>Humidity (%RH)</b>	40.0

<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using a type C goniophotometer and software.</p> <p>The ambient temperature shall be maintained at <math>25 \pm 1^{\circ}\text{C}</math>, measured at a point not more than 1 m from the sample and at the same height as the sample.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within <math>\pm 0.2</math> percent under load.</p> <p>The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at <math>1.0^{\circ}</math> vertical intervals and <math>15^{\circ}</math> horizontal intervals.</p>

### Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
<b>WORST CASE</b>	120.0	60	0.133	15.8	0.994
<b>NON-WORST CASE</b>	277.0	60	0.060	15.7	0.946

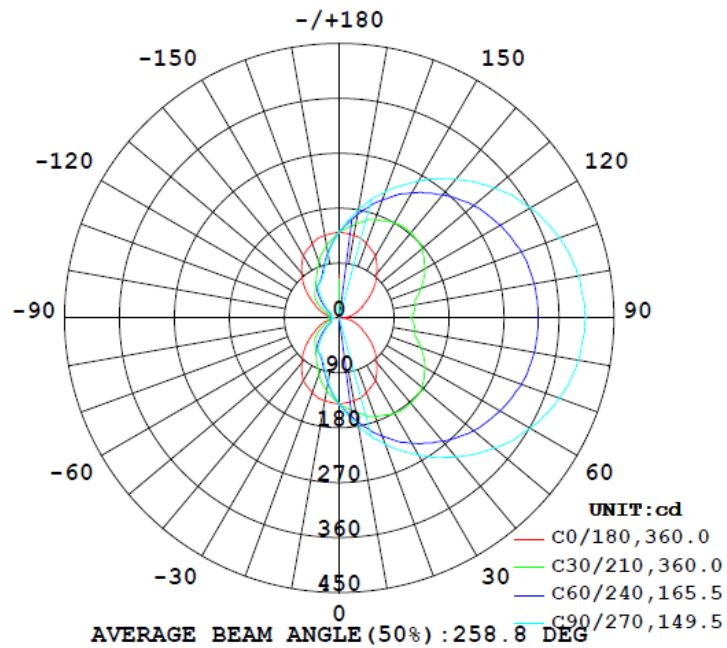
### Test Result

Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	BUG
	C0-180	C90-270	C0-180	C90-270		(0°-60°)	
1610	86.8	155.7	180.0	97.6	101.9	26.5%	B0-U4-G2

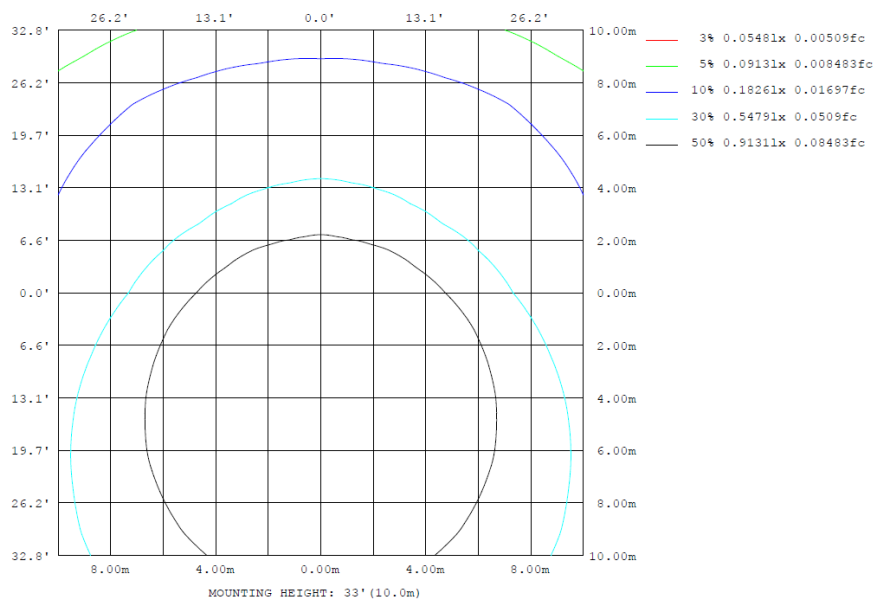
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

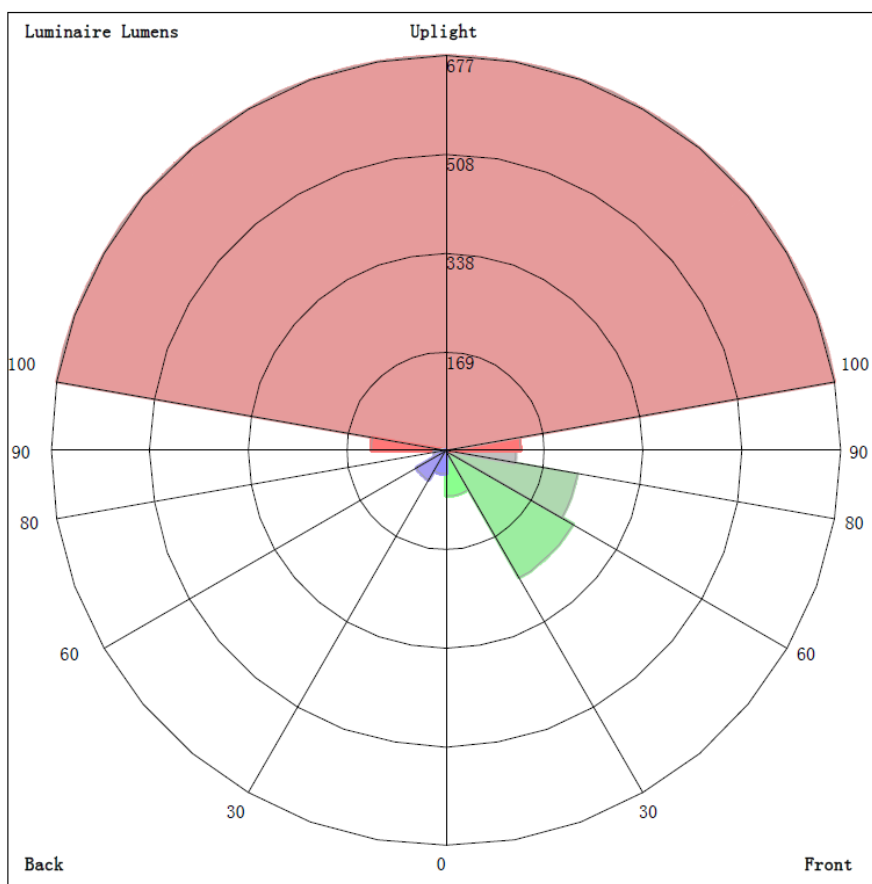
### Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total	lum, lamp
10	137.6	165.1	179.1	165.1	137.6	113.6	106.2	113.6	0- 10	13.36	13.36	0.83,0.83
20	130.0	192.4	220.3	192.4	130.0	87.41	76.67	87.41	10- 20	39.55	52.91	3.29,3.29
30	118.4	210.8	258.9	210.8	118.4	68.25	66.62	68.25	20- 30	64.38	117.3	7.28,7.28
40	95.77	226.4	297.1	226.4	95.77	60.64	48.17	60.64	30- 40	87.81	205.1	12.7,12.7
50	72.20	236.1	331.6	236.1	72.20	42.76	28.99	42.76	40- 50	105.6	310.7	19.3,19.3
60	47.68	240.3	361.1	240.3	47.68	25.33	14.77	25.33	50- 60	116.7	427.3	26.5,26.5
70	32.02	239.4	384.1	239.4	32.02	15.77	14.02	15.77	60- 70	123.0	550.4	34.2,34.2
80	17.36	235.0	397.2	235.0	17.36	15.58	12.90	15.58	70- 80	126.5	676.8	42,42
90	3.714	231.1	404.4	231.1	3.714	15.91	13.32	15.91	80- 90	128.2	805.0	50,50
100	17.36	235.0	397.2	235.0	17.36	15.58	12.90	15.58	90-100	128.2	933.2	58,58
110	32.02	239.4	384.1	239.4	32.02	15.77	14.02	15.77	100-110	126.5	1060	65.8,65.8
120	47.68	240.3	361.1	240.3	47.68	25.33	14.77	25.33	110-120	123.0	1183	73.5,73.5
130	72.20	236.1	331.6	236.1	72.20	42.76	28.99	42.76	120-130	116.7	1299	80.7,80.7
140	95.77	226.4	297.1	226.4	95.77	60.64	48.17	60.64	130-140	105.6	1405	87.3,87.3
150	118.4	210.8	258.9	210.8	118.4	68.25	66.62	68.25	140-150	87.81	1493	92.7,92.7
160	130.0	192.4	220.3	192.4	130.0	87.41	76.67	87.41	150-160	64.38	1557	96.7,96.7
170	137.6	165.1	179.1	165.1	137.6	113.6	106.2	113.6	160-170	39.55	1597	99.2,99.2
180	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	170-180	13.36	1610	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	13.36	0-10	13.36	0.84%
10-20	39.55	0-20	52.91	3.31%
20-30	64.38	0-30	117.29	7.35%
30-40	87.81	0-40	205.10	12.85%
40-50	105.59	0-50	310.69	19.46%
50-60	116.66	0-60	427.35	26.76%
60-70	123.01	0-70	550.36	34.47%
70-80	126.49	0-80	676.85	42.39%
80-90	128.19	0-90	805.04	50.42%
90-100	128.19	0-100	933.23	58.45%
100-110	126.49	0-110	1059.72	66.37%
110-120	123.01	0-120	1182.73	74.07%
120-130	116.66	0-130	1299.39	81.38%
130-140	105.59	0-140	1404.98	87.99%
140-150	87.81	0-150	1492.79	93.49%
150-160	64.38	0-160	1557.17	97.52%
160-170	39.55	0-170	1596.72	100.00%
170-180	13.36	0-180	1610.08	100.84%

## 4.2 Goniophotometer Test

LCS/BUG

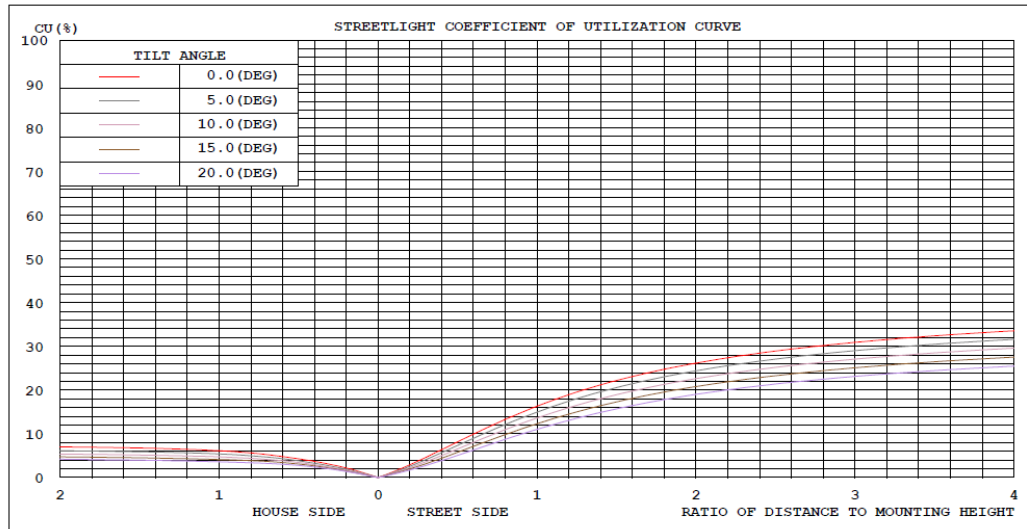


### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

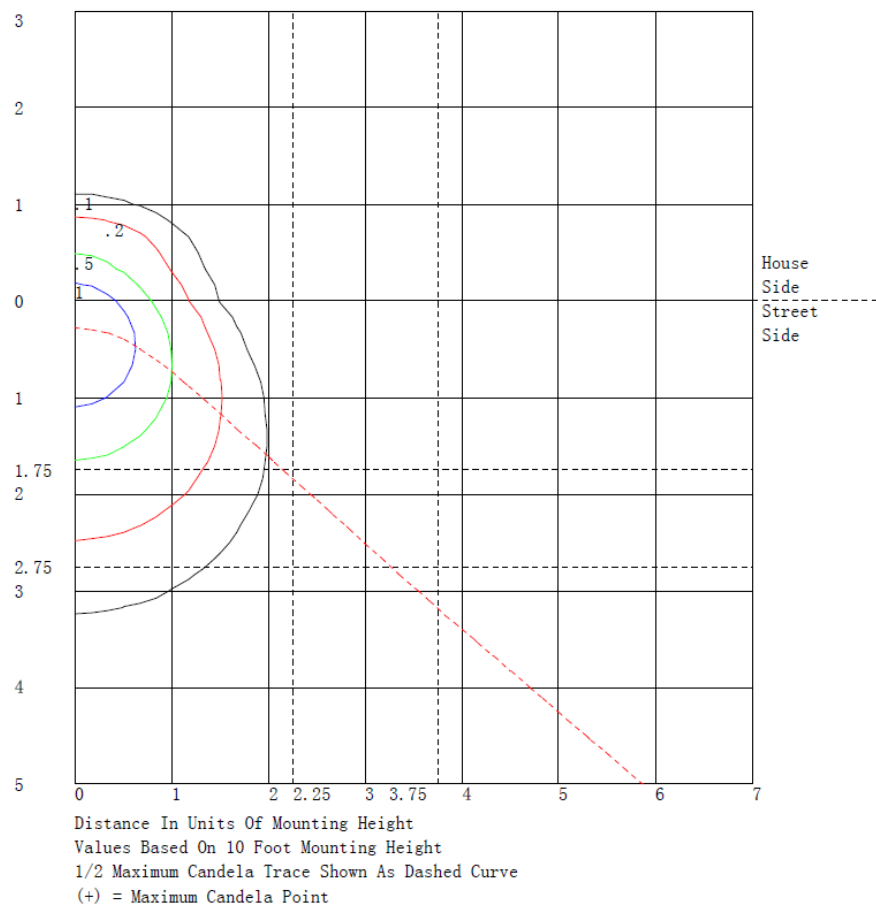
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	77.4	N.A.	4.8
FM - Front-Medium (30-60)	251.9	N.A.	15.6
FH - Front-High (60-80)	229.0	N.A.	14.2
FVH - Front-Very High (80-90)	120.2	N.A.	7.5
BL - Back-Low (0-30)	39.9	N.A.	2.5
BM - Back-Medium (30-60)	58.1	N.A.	3.6
BH - Back-High (60-80)	20.5	N.A.	1.3
BVH - Back-Very High (80-90)	8.0	N.A.	0.5
UL - Uplight-Low (90-100)	128.2	N.A.	8.0
UH - Uplight-High (100-180)	676.8	N.A.	42.0
Total	1610.0	N.A.	100.0
BUG Rating	B0-U4-G2		

## 4.2 Goniophotometer Test

### Coefficients of Utilization



### Isolines



## 4.2 Goniophotometer Test

### Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
γ (DEG)	0	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141
5	139	144	149	152	156	159	160	159	156	152	149	144	139	135	130	127	125	124	124
10	138	147	157	165	173	177	179	177	173	165	157	147	138	128	121	114	109	106	106
15	136	150	165	178	189	198	201	198	189	178	165	150	136	122	110	100	93.6	89.6	89.5
20	130	149	172	192	206	215	220	215	206	192	172	149	130	112	98.1	87.4	80.2	76.5	76.7
25	124	149	175	202	223	234	239	234	223	202	175	149	124	103	86.0	76.1	71.5	68.9	69.1
30	118	148	180	211	237	252	259	252	237	211	180	148	118	93.0	75.7	68.3	66.1	65.9	66.6
35	107	143	183	220	250	271	279	271	250	220	183	143	107	81.7	67.8	63.7	63.3	61.8	60.8
40	95.8	137	182	226	264	288	297	288	264	226	182	137	95.8	70.9	61.2	60.6	55.5	49.5	48.2
45	84.5	130	181	232	276	305	315	305	276	232	181	130	84.5	61.5	56.6	53.6	43.9	38.6	37.0
50	72.2	118	177	236	287	320	332	320	287	236	177	118	72.2	53.8	52.1	42.8	34.4	30.2	29.0
55	59.9	105	170	239	296	333	349	333	296	239	170	105	59.9	47.4	44.3	33.2	26.5	22.7	21.8
60	47.7	91.7	162	240	304	347	361	347	304	240	162	91.7	47.7	41.5	35.8	25.3	18.7	15.3	14.8
65	39.8	80.6	153	240	311	358	373	358	311	240	153	80.6	39.8	35.0	27.1	18.6	15.1	14.4	14.4
70	32.0	69.2	142	239	318	367	384	367	318	239	142	69.2	32.0	27.8	21.8	15.8	15.0	14.3	14.0
75	24.2	56.8	132	238	321	374	392	374	321	238	132	56.8	24.2	20.6	17.2	15.8	14.9	13.6	13.5
80	17.4	53.9	126	235	324	379	397	379	324	235	126	53.9	17.4	19.0	16.1	15.6	13.9	12.7	12.9
85	10.5	51.7	123	234	326	383	400	383	326	234	123	51.7	10.5	18.3	17.0	15.7	13.9	11.7	11.8
90	3.71	49.0	118	231	325	385	404	385	325	231	118	49.0	3.71	17.7	17.9	15.9	14.8	13.3	13.3
95	10.5	51.7	123	234	326	383	400	383	326	234	123	51.7	10.5	18.3	17.0	15.7	13.9	11.7	11.8
100	17.4	53.9	126	235	324	379	397	379	324	235	126	53.9	17.4	19.0	16.1	15.6	13.9	12.7	12.9
105	24.2	56.8	132	238	321	374	392	374	321	238	132	56.8	24.2	20.6	17.2	15.8	14.9	13.6	13.5
110	32.0	69.2	142	239	318	367	384	367	318	239	142	69.2	32.0	27.8	21.8	15.8	15.0	14.3	14.0
115	39.8	80.6	153	240	311	358	373	358	311	240	153	80.6	39.8	35.0	27.1	18.6	15.1	14.4	14.4
120	47.7	91.7	162	240	304	347	361	347	304	240	162	91.7	47.7	41.5	35.8	25.3	18.7	15.3	14.8
125	59.9	105	170	239	296	333	349	333	296	239	170	105	59.9	47.4	44.3	33.2	26.5	22.7	21.8
130	72.2	118	177	236	287	320	332	320	287	236	177	118	72.2	53.8	52.1	42.8	34.4	30.2	29.0
135	84.5	130	181	232	276	305	315	305	276	232	181	130	84.5	61.5	56.6	53.6	43.9	38.6	37.0
140	95.8	137	182	226	264	288	297	288	264	226	182	137	95.8	70.9	61.2	60.6	55.5	49.5	48.2
145	107	143	183	220	250	271	279	271	250	220	183	143	107	81.7	67.8	63.7	63.3	61.8	60.8
150	118	148	180	211	237	252	259	252	237	211	180	148	118	93.0	75.7	68.3	66.1	65.9	66.6
155	124	149	175	202	223	234	239	234	223	202	175	149	124	103	86.0	76.1	71.5	68.9	69.1
160	130	149	172	192	206	215	220	215	206	192	172	149	130	112	98.1	87.4	80.2	76.5	76.7
165	136	150	165	178	189	198	201	198	189	178	165	150	136	122	110	100	93.6	89.6	89.5
170	138	147	157	165	173	177	179	177	173	165	157	147	138	128	121	114	109	106	106
175	139	144	149	152	156	159	160	159	156	152	149	144	139	135	130	127	125	124	124
180	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
γ (DEG)	0	141	141	141	141	141													
5	124	125	127	130	135														
10	106	109	114	121	128														
15	89.6	93.6	100	110	122														
20	76.5	80.2	87.4	98.1	112														
25	68.9	71.5	76.1	86.0	103														
30	65.9	66.1	68.3	75.7	93.0														
35	61.8	63.3	63.7	67.8	81.7														
40	49.5	55.5	60.6	61.2	70.9														
45	38.6	43.9	53.6	56.6	61.5														
50	30.2	34.4	42.8	52.1	53.8														
55	22.7	26.5	33.2	44.3	47.4														
60	15.3	18.7	25.3	35.8	41.5														
65	14.4	15.1	18.6	27.1	35.0														
70	14.3	15.0	15.8	21.8	27.8														
75	13.6	14.9	15.8	17.2	20.6														
80	12.7	13.9	15.6	16.1	19.0														
85	11.7	13.9	15.7	17.0	18.3														
90	13.3	14.8	15.9	17.9	17.7														
95	11.7	13.9	15.7	17.0	18.3														
100	12.7	13.9	15.6	16.1	19.0														
105	13.6	14.9	15.8	17.2	20.6														
110	14.3	15.0	15.8	21.8	27.8														
115	14.4	15.1	18.6	27.1	35.0														
120	15.3	18.7	25.3	35.8	41.5														
125	22.7	26.5	33.2	44.3	47.4														
130	30.2	34.4	42.8	52.1	53.8														
135	38.6	43.9	53.6	56.6	61.5														
140	49.5	55.5	60.6	61.2	70.9														
145	61.8	63.3	63.7	67.8	81.7														
150	65.9	66.1	68.3	75.7	93.0														
155	68.9	71.5	76.1	86.0	103														
160	76.5	80.2	87.4	98.1	112														
165	89.6	93.6	100	110	122														
170	106	109	114	121	128														
175	124	125	127	130	135														
180	141	141	141	141	141														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	V1-18B @16W2700K	<b>Sample ID</b>	250728006-S1
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

<b>Test Method</b>
<p>The samples were tested according to the and Ansi C82.77: 2002 and ANSI C82.77-10:2020</p> <p>The total harmonic distortion shall be measured to the 40th order.</p> <p>The ambient temperature shall be maintained at <math>25 \pm 1^{\circ}\text{C}</math>. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion was calculated.</p>

### Test Results

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.133	15.8	0.994	6.80
277.0	60	0.060	15.7	0.946	15.73



## 5.0 Equipment List:

Equipment ID	Equipment Name	Last Cal.	Due Cal.
NTC-F01-001	Goniophotometer System	2024-11-07	2025-11-06
NTC-F01-006	2.0 meter Integrating Sphere	2024-11-07	2025-11-06
NTC-F01-012	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-013	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-031	Digital Power Meter	2024-08-06	2025-08-05
NTC-F01-019	Temperature & Humidity Meter	2024-10-29	2025-10-28

\*\*\*\*\*End of Report\*\*\*\*\*