

REPORT NUMBER: PRORATED FROM RAB04544

PAGE: 1 OF 6

ISSUE DATE: 08/21/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: CDL6W-40W80D927-ODLENS

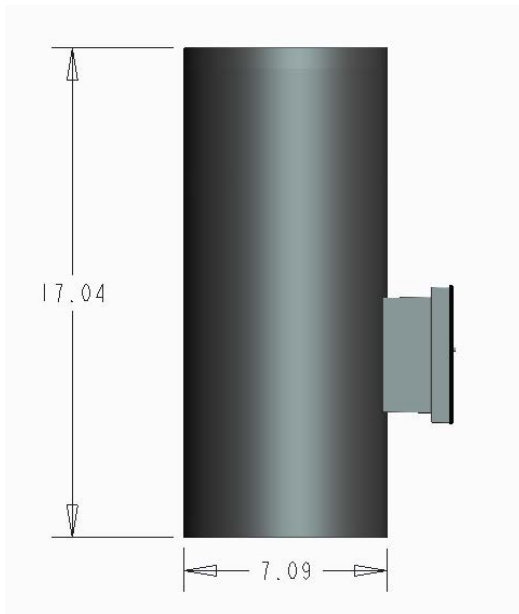
LUMINAIRE: EXTRUDED BLACK PAINTED METAL HOUSING, CAST FINNED METAL HEAT SINK, 2 WHITE CIRCUIT BOARD WITH 2 LED, MOLDED PLASTIC UPPER REFLECTOR, HOLOGRAPHIC PLASTIC LENS OVER UPPER APERTURE OF LOWER REFLECTOR, ALUMINUM TRIM DOOR WITH GLASS LENS.

LAMPS: TWO WHITE LIGHT EMITTING DIODES (LEDS).

NOTE: THIS REPORT WAS PRORATED FROM RAB04544 WHICH WAS CDL6W-40W80D927-ODLENS WITH UPPER OPENING COVERED. THE DATA WAS DOUBLED/MIRRORED TO REPRESENT A WALL DIRECT/INDIRECT LIGHT. ACTUAL PERFORMANCE MAY VARY.

WATT: TOTAL INPUT WATTS = 34.4 W AT 120.0 VAC.

LED DRIVER: LED DRIVER: RDD-40W-042SE-A0900



Checked X.CAO

Approved D.WANG-MUNSON

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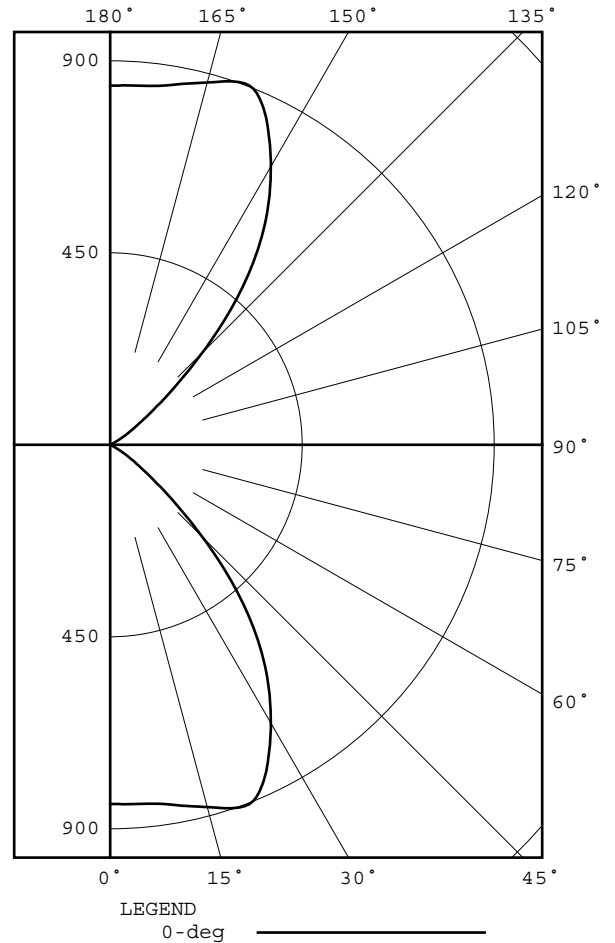
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: CDL6W-40W80D927-ODLENS

DEG	CANDELA	LUMENS
0	842	
5	845	81
15	879	250
25	858	390
35	633	391
45	307	238
55	69	67
65	3	7
75	1	1
85	0	0
90	0	
95	0	0
105	1	1
115	3	7
125	69	67
135	307	238
145	633	391
155	858	390
165	879	250
175	845	81
180	842	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	721	25.3
0- 40	1112	39.0
0- 60	1417	49.7
0- 90	1424	50.0
90-120	8	0.3
90-130	75	2.6
90-150	703	24.7
90-180	1424	50.0
0-180	2849	100.0

EFFICACY = 82.8 lm/W
 CIE TYPE - GENERAL DIFFUSE
 SPACING CRITERION: 1.20





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CANDELA DISTRIBUTION

0.0	842	60.0	26	120.0	26	180.0	842
1.0	842	61.0	19	121.0	33		
2.0	843	62.0	13	122.0	41		
3.0	843	63.0	9	123.0	49		
4.0	844	64.0	6	124.0	59		
5.0	845	65.0	3	125.0	69		
6.0	846	66.0	2	126.0	81		
7.0	847	67.0	1	127.0	95		
8.0	850	68.0	1	128.0	111		
9.0	853	69.0	1	129.0	130		
10.0	857	70.0	1	130.0	155		
11.0	861	71.0	1	131.0	182		
12.0	866	72.0	1	132.0	211		
13.0	870	73.0	1	133.0	242		
14.0	874	74.0	1	134.0	274		
15.0	879	75.0	1	135.0	307		
16.0	884	76.0	1	136.0	342		
17.0	890	77.0	1	137.0	379		
18.0	896	78.0	1	138.0	413		
19.0	900	79.0	1	139.0	448		
20.0	903	80.0	0	140.0	482		
21.0	903	81.0	0	141.0	515		
22.0	899	82.0	0	142.0	547		
23.0	888	83.0	0	143.0	578		
24.0	875	84.0	0	144.0	606		
25.0	858	85.0	0	145.0	633		
26.0	839	86.0	0	146.0	658		
27.0	818	87.0	0	147.0	683		
28.0	798	88.0	0	148.0	707		
29.0	776	89.0	0	149.0	730		
30.0	753	90.0	0	150.0	753		
31.0	730	91.0	0	151.0	776		
32.0	707	92.0	0	152.0	798		
33.0	683	93.0	0	153.0	818		
34.0	658	94.0	0	154.0	839		
35.0	633	95.0	0	155.0	858		
36.0	606	96.0	0	156.0	875		
37.0	578	97.0	0	157.0	888		
38.0	547	98.0	0	158.0	899		
39.0	515	99.0	0	159.0	903		
40.0	482	100.0	0	160.0	903		
41.0	448	101.0	1	161.0	900		
42.0	413	102.0	1	162.0	896		
43.0	379	103.0	1	163.0	890		
44.0	342	104.0	1	164.0	884		
45.0	307	105.0	1	165.0	879		
46.0	274	106.0	1	166.0	874		
47.0	242	107.0	1	167.0	870		
48.0	211	108.0	1	168.0	866		
49.0	182	109.0	1	169.0	861		
50.0	155	110.0	1	170.0	857		
51.0	130	111.0	1	171.0	853		
52.0	111	112.0	1	172.0	850		
53.0	95	113.0	1	173.0	847		
54.0	81	114.0	2	174.0	846		
55.0	69	115.0	3	175.0	845		
56.0	59	116.0	6	176.0	844		
57.0	49	117.0	9	177.0	843		
58.0	41	118.0	13	178.0	843		
59.0	33	119.0	19	179.0	842		

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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	20
5- 10	61
10- 15	103
15- 20	147
20- 25	186
25- 30	204
30- 35	204
35- 40	187
40- 45	146
45- 50	92
50- 55	46
55- 60	21
60- 65	6
65- 70	1
70- 75	1
75- 80	0
80- 85	0
85- 90	0
90- 95	0
95-100	0
100-105	0
105-110	1
110-115	1
115-120	6
120-125	21
125-130	46
130-135	92
135-140	146
140-145	187
145-150	204
150-155	204
155-160	186
160-165	147
165-170	103
170-175	61
175-180	20

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	81
0- 20	331
0- 30	721
0- 40	1112
0- 50	1350
0- 60	1417
0- 70	1423
0- 80	1424
0- 90	1424
0-100	1424
0-110	1425
0-120	1432
0-130	1499
0-140	1737
0-150	2127
0-160	2518
0-170	2768
0-180	2849

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	100	96	93	90	92	89	86	84	76	74	72	64	62	61	52	52	51	46
2	92	86	81	77	85	80	76	72	69	66	63	58	56	54	49	47	46	42
3	86	78	71	66	79	72	67	63	62	59	55	53	51	48	45	43	42	38
4	79	70	63	58	73	65	60	55	57	52	49	49	46	43	41	39	38	34
5	74	63	56	51	68	59	53	49	52	47	44	45	41	39	38	36	34	31
6	68	58	50	45	63	54	48	43	47	43	39	41	38	35	35	33	31	28
7	64	53	45	40	59	50	43	39	44	39	35	38	34	32	33	30	28	26
8	59	48	41	36	55	45	39	35	40	35	32	35	31	29	31	28	26	24
9	56	44	38	33	52	42	36	32	37	32	29	33	29	26	29	26	24	22
10	52	41	34	30	49	39	33	29	34	30	26	30	27	24	27	24	22	20

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

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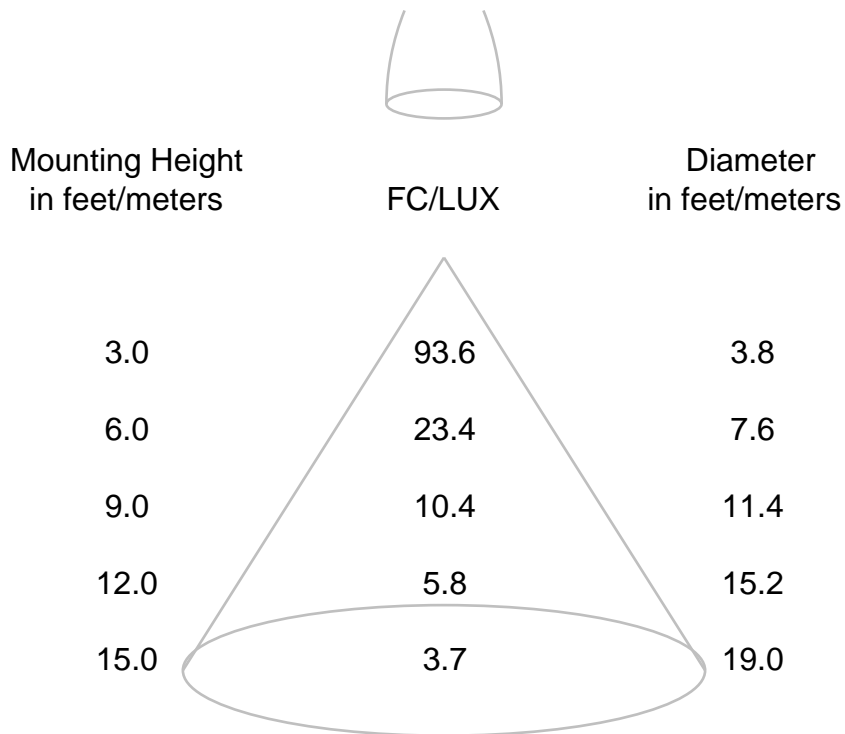
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CONE OF LIGHT DIAGRAM

(diameter shown is where fc/lux value is half the fc/lux at nadir)



If distances are feet, results are footcandles.
If distances are meters, results are lux.

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ADDRESS: 170 LUDLOW AVE, NORTHVALE, NJ 07647

LUMINAIRE: EXTRUDED BLACK PAINTED METAL HOUSING, CAST FINNED METAL HEAT SINK, 2 WHITE CIRCUIT BOARD WITH 2 LED, MOLDED PLASTIC UPPER REFLECTOR, HOLOGRAPHIC PLASTIC LENS OVER UPPER APERTURE OF LOWER REFLECTOR, ALUMINUM TRIM DOOR WITH GLASS LENS.

LAMP: TWO WHITE LIGHT EMITTING DIODES (LEDS).

DRIVER: RDD-40W-042SE-A0900

OBJECT OF TEST: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT THE RATED INPUT VOLTAGES (120.0 AND 277.0 VAC, 60Hz) TO THE TEST SAMPLE.

INSTRUMENTS: GWINSTEK PROGRAMMABLE AC POWER SOURCE APS-7100
CHROMA PROGRAMMABLE DIGITAL POWER METER MODEL 66202
OCEAN OPTICS QE65PRO Spectroradiometer
RAB 2.0 meter Diameter Integrating Sphere, 4PI Geometry

Calibration Due:
N/A
3/08/19
08/22/19
08/22/19

OBJECT OF TEST: Measure the Absolute Flux in lumens*, Total Radiant Flux*, Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y; u'v'), ANSI C78.377 Duv, and electrical data including ANSI C82.77-2002 Power Factor (PF), and Total Harmonic Distortion (THD) to the test sample. Measure electrical data including Total Harmonic Distortion (THD) at maximum nominal rated input voltage. Report Off-State Power.

PROCEDURE: The test sample was mounted inside the integrating sphere, energized, and allowed to stabilize. After stabilization occurred, measurements were taken. In order to measure mean performance, multiple data sets were recorded and averaged. Readings were taken with the test sample operating at 60 HZ input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. Electrical data was also recorded at maximum nominal rated input voltage (277.0 VAC). All data are traceable to the National Institute of Standards and Technology. Off-State Power was reported with no voltage applied to the sample.

*NOTE: Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.

RESULTS: (continued subsequent pages)

Checked	<u>X.CAO</u>
Approved	<u>D.WANG-MUNSON</u> Lighting Engineer

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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	2849 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4597
Chromaticity Ordinate y	0.4157
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2601
Chromaticity Ordinate v'	0.5293
Correlated Color Temp CCT (K)	2742
ANSI C78.377-2008 Duv	0.002
Total Radiant Flux (milliWatts)	9853 *
ELECTRICAL	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.292
Input Power (Watts)	34.4
Input Power Factor (%)	98.4
Input Current THD (%)	12.8
Input Voltage THD (%)	0.2
EFFICACY (Lumens/Watt)	
82.8	
ELECTRICAL AT MAX NONIMAL INPUT	
Input Voltage (Volts AC)	277.0
Input Current (Amps AC)	0.138
Input Power (Watts)	34.3
Input Power Factor (%)	89.7
Input Current THD (%)	19.7
Input Voltage THD (%)	0.2
Off-State Power (Watts)	
0.0	

COLOR RENDERING INDICES	CRI
Ra (Average 1-8)	91
R1 Light greyish red	90
R2 Dark greyish yellow	95
R3 Strong yellowish green	99
R4 Moderate yellowish green	90
R5 Light bluish green	90
R6 Light blue	95
R7 Light violet	91
R8 Light reddish purple	78
R9 Strong red	52
R10 Strong yellow	88
R11 Strong green	91
R12 Strong blue	80
R13 Light yellowish pink (skin)	91
R14 Moderate olive green (leaf)	99

*NOTE:

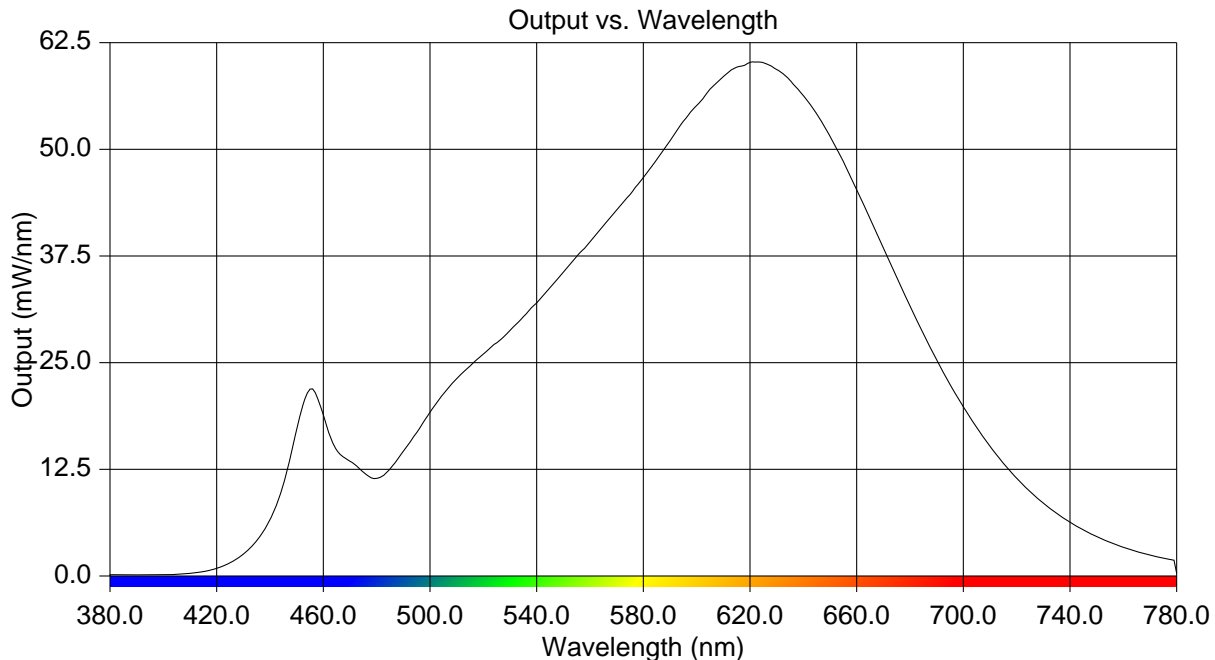
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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.136	515	24.594	650	51.475
385	0.141	520	25.995	655	48.581
390	0.127	525	27.316	660	45.281
395	0.129	530	28.751	665	41.880
400	0.149	535	30.378	670	38.510
405	0.198	540	31.995	675	35.026
410	0.304	545	33.825	680	31.619
415	0.509	550	35.623	685	28.395
420	0.909	555	37.457	690	25.256
425	1.525	560	39.183	695	22.446
430	2.548	565	41.049	700	19.821
435	4.171	570	42.897	705	17.405
440	6.612	575	44.686	710	15.226
445	10.744	580	46.653	715	13.220
450	17.152	585	48.812	720	11.481
455	21.898	590	51.019	725	9.914
460	18.890	595	53.291	730	8.518
465	14.739	600	55.141	735	7.315
470	13.446	605	57.052	740	6.290
475	12.165	610	58.521	745	5.381
480	11.444	615	59.627	750	4.633
485	12.556	620	60.195	755	3.948
490	14.632	625	60.164	760	3.377
495	16.795	630	59.354	765	2.891
500	19.165	635	58.097	770	2.454
505	21.312	640	56.314	775	2.104
510	23.148	645	54.135	780	0.312



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CIE Chromaticity Diagram

