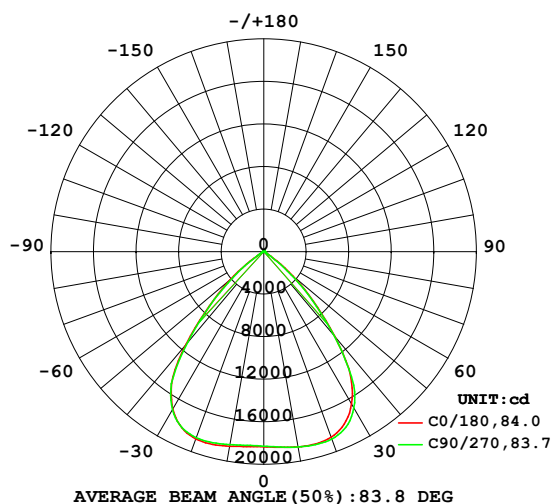


## LUMINAIRE PHOTOMETRIC TEST REPORT

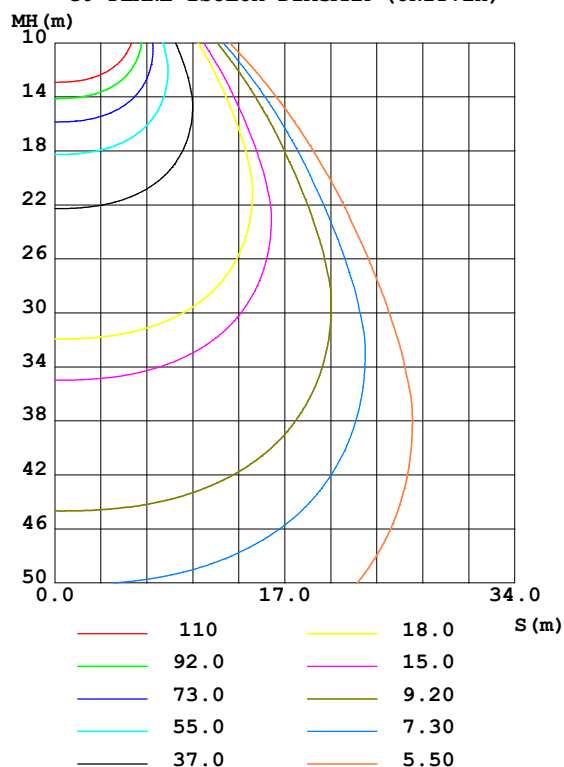
Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm		
NAME: H17XL-RAL-240W-3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.00 lm/W			
MODEL		I <sub>max</sub> (cd)	18802	S/MH (C0/180)	1.23
NOMINAL POWER(W)	240	LOR(%)	100.0	S/MH (C90/270)	1.22
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	31653	□ UP,DN(C0-180)	0.5,48.7
NOMINAL FLUX(lm)	31652.8	CIE CLASS	DIRECT	□ UP,DN(C180-360)	0.5,50.3
LAMPS INSIDE	1	□ up (%)	1.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	□ down (%)	99.0	CIBSE SHR MAX	1.25

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.1DEG  
 Operators: Marvin Ma  
 Test Date: 2022-08-31

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	1864	1867	1865	1854	1857	1843	1842	1847	0- 10	1760	1760	5.56,5.56
20	1855	1861	1874	1867	1873	1868	1860	1845	10- 20	5290	7050	22.3,22.3
30	1653	1660	1696	1708	1710	1733	1716	1651	20- 30	8310	15360	48.5,48.5
40	1036	1004	1025	1122	1133	1182	1115	1007	30- 40	8952	24312	76.8,76.8
50	362.2	321.0	337.4	399.8	414.7	440.1	383.7	336.6	40- 50	5354	29667	93.7,93.7
60	34.33	30.16	34.99	40.14	39.36	49.22	46.08	36.05	50- 60	1367	31033	98,98
70	9.585	8.980	10.91	10.69	9.682	13.91	15.82	12.05	60- 70	201.7	31235	98.7,98.7
80	3.558	3.216	3.989	3.983	3.515	5.192	5.861	4.412	70- 80	77.96	31313	98.9,98.9
90	0.7542	0.6541	0.6749	0.6914	0.5757	0.6004	0.6608	0.6868	80- 90	22.16	31335	99,99
100	1.264	1.276	1.228	1.099	1.031	0.9732	1.027	1.139	90-100	8.850	31344	99,99
110	2.497	2.530	2.478	2.242	2.192	2.057	2.169	2.285	100-110	17.56	31362	99.1,99.1
120	4.337	4.300	4.346	3.947	4.012	3.746	4.013	4.028	110-120	31.20	31393	99.2,99.2
130	6.482	6.205	6.517	5.853	6.239	5.733	6.205	6.017	120-130	45.65	31438	99.3,99.3
140	8.303	8.331	8.335	7.972	8.311	8.022	8.361	8.218	130-140	55.49	31494	99.5,99.5
150	9.942	10.10	10.02	9.780	10.20	10.03	10.18	10.33	140-150	57.32	31551	99.7,99.7
160	11.97	12.02	12.03	11.70	12.25	12.01	12.23	12.30	150-160	50.77	31602	99.8,99.8
170	14.09	14.01	14.09	13.81	14.31	14.01	14.24	14.19	160-170	36.88	31639	100,100
180	15.33	15.16	15.25	15.15	15.35	15.15	15.26	15.13	170-180	13.94	31653	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 27549 lm

%lum = 87.0%

%lamp = 87.0%

Conical surface Flux(120deg): 31033 lm

%lum = 98.0%

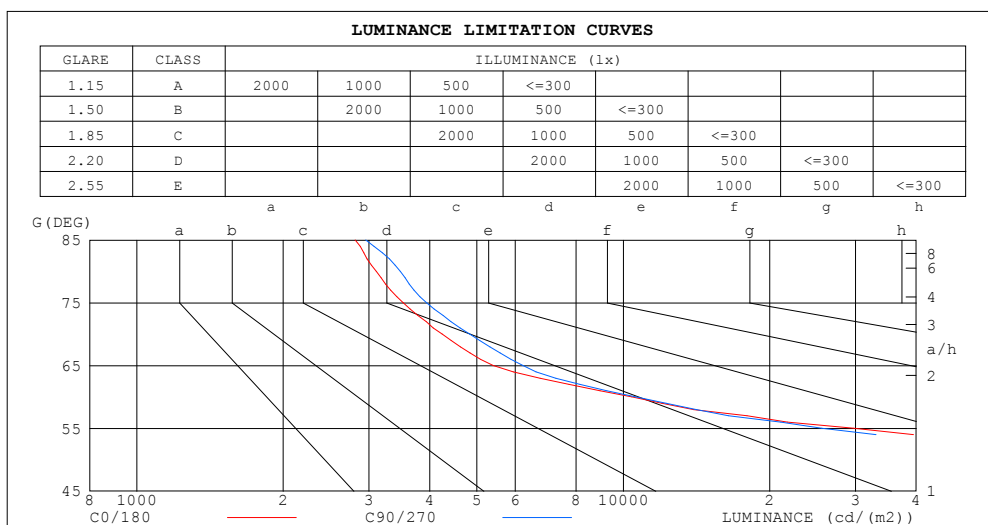
%lamp = 98.0%

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Marvin Ma  
 Test Date:2022-08-31

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm		
NAME: H17XL-RAL-240W-3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2813	2953
80	3105	3480
75	3530	3944
70	4246	4835
65	5404	6217
60	10403	10602
55	29756	25566
50	85380	79540
45	142113	137804

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1DEG  
Operators:Marvin Ma  
Test Date:2022-08-31

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
Humidity:56%  
Test Distance:6.500m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm		
NAME: H17XL-RAL-240W-3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)					
0.0						
1.0	.205 .117 .037	.198 .113 .036	.185 .106 .034	.172 .099 .032	.161 .093 .030	
2.0	.200 .109 .034	.194 .107 .033	.182 .101 .031	.172 .096 .030	.162 .092 .029	
3.0	.192 .102 .031	.187 .100 .030	.177 .096 .029	.167 .092 .028	.159 .088 .027	
4.0	.183 .095 .028	.179 .094 .028	.170 .090 .027	.162 .087 .026	.155 .084 .026	
5.0	.175 .089 .026	.171 .088 .026	.163 .085 .025	.156 .082 .024	.149 .080 .024	
6.0	.167 .084 .024	.163 .082 .024	.156 .080 .023	.150 .078 .023	.144 .076 .023	
7.0	.159 .079 .022	.156 .078 .022	.150 .076 .022	.144 .074 .021	.139 .072 .021	
8.0	.152 .074 .021	.149 .073 .021	.143 .072 .020	.138 .070 .020	.133 .068 .020	
9.0	.145 .070 .020	.142 .069 .019	.137 .068 .019	.133 .066 .019	.128 .065 .019	
10.0	.138 .066 .018	.136 .066 .018	.132 .064 .018	.127 .063 .018	.123 .062 .018	

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)					
0.0	.198 .198 .198	.169 .169 .169	.116 .116 .116	.066 .066 .066	.021 .021 .021	
1.0	.181 .165 .150	.155 .141 .129	.106 .097 .090	.061 .056 .052	.020 .018 .017	
2.0	.168 .140 .117	.144 .121 .101	.098 .083 .070	.057 .049 .041	.018 .016 .013	
3.0	.157 .122 .093	.135 .105 .081	.093 .073 .057	.053 .043 .033	.017 .014 .011	
4.0	.148 .107 .076	.127 .093 .066	.088 .065 .046	.051 .038 .027	.016 .012 .009	
5.0	.141 .096 .063	.121 .083 .055	.083 .058 .039	.048 .034 .023	.016 .011 .008	
6.0	.134 .087 .054	.115 .076 .047	.080 .053 .033	.046 .031 .020	.015 .010 .007	
7.0	.128 .080 .047	.110 .070 .041	.076 .049 .029	.044 .029 .017	.014 .009 .006	
8.0	.123 .074 .041	.106 .064 .036	.073 .045 .025	.043 .027 .015	.014 .009 .005	
9.0	.118 .069 .037	.102 .060 .032	.070 .042 .023	.041 .025 .014	.013 .008 .004	
10.0	.113 .065 .033	.098 .057 .029	.068 .040 .021	.040 .024 .012	.013 .008 .004	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Marvin Ma  
 Test Date:2022-08-31

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

## UGR(Unified Glare Rating) Table

Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm										
NAME: H17XL-RAL-240W-3K					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: RAB LIGHTING INC					SUR.:0.29*0.29m			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	25.9	27.0	26.1	27.2	27.4	25.8	27.0	26.1	27.2	27.4
3H	25.7	26.7	26.0	27.0	27.2	25.6	26.7	25.9	26.9	27.1
4H	25.6	26.6	25.9	26.8	27.1	25.5	26.5	25.8	26.8	27.0
6H	25.5	26.4	25.8	26.7	27.0	25.5	26.4	25.8	26.6	26.9
8H	25.5	26.3	25.8	26.6	26.9	25.4	26.3	25.7	26.6	26.9
12H	25.4	26.3	25.8	26.5	26.8	25.4	26.2	25.7	26.5	26.8
4H 2H	25.6	26.6	25.9	26.8	27.1	25.6	26.5	25.9	26.8	27.0
3H	25.4	26.3	25.8	26.6	26.9	25.4	26.2	25.7	26.5	26.8
4H	25.3	26.1	25.7	26.4	26.8	25.3	26.0	25.7	26.4	26.7
6H	25.3	25.9	25.7	26.3	26.6	25.2	25.9	25.6	26.2	26.6
8H	25.2	25.8	25.6	26.2	26.6	25.2	25.8	25.6	26.1	26.5
12H	25.2	25.7	25.6	26.1	26.5	25.1	25.7	25.5	26.1	26.5
8H 4H	25.2	25.8	25.6	26.2	26.6	25.1	25.8	25.6	26.1	26.5
6H	25.1	25.6	25.6	26.0	26.5	25.1	25.6	25.5	26.0	26.4
8H	25.1	25.5	25.5	25.9	26.4	25.0	25.4	25.5	25.9	26.3
12H	25.0	25.4	25.5	25.8	26.3	25.0	25.3	25.5	25.8	26.3
12H 4H	25.2	25.7	25.6	26.1	26.5	25.1	25.7	25.5	26.0	26.5
6H	25.1	25.5	25.5	25.9	26.4	25.0	25.4	25.5	25.9	26.3
8H	25.0	25.4	25.5	25.8	26.3	25.0	25.3	25.5	25.8	26.3
Variations with the observer position at spacings:										
S = 1.0H	+ 2.5 / -11.0					+ 2.5 / -10.9				
1.5H	+ 3.2 / - 9.3					+ 3.3 / - 9.2				
2.0H	+ 6.1 / -12.0					+ 6.1 / -11.5				

CIE Pub.117, 31653 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 12.0$ )

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Marvin Ma  
 Test Date:2022-08-31

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm		
NAME: H17XL-RAL-240W-3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

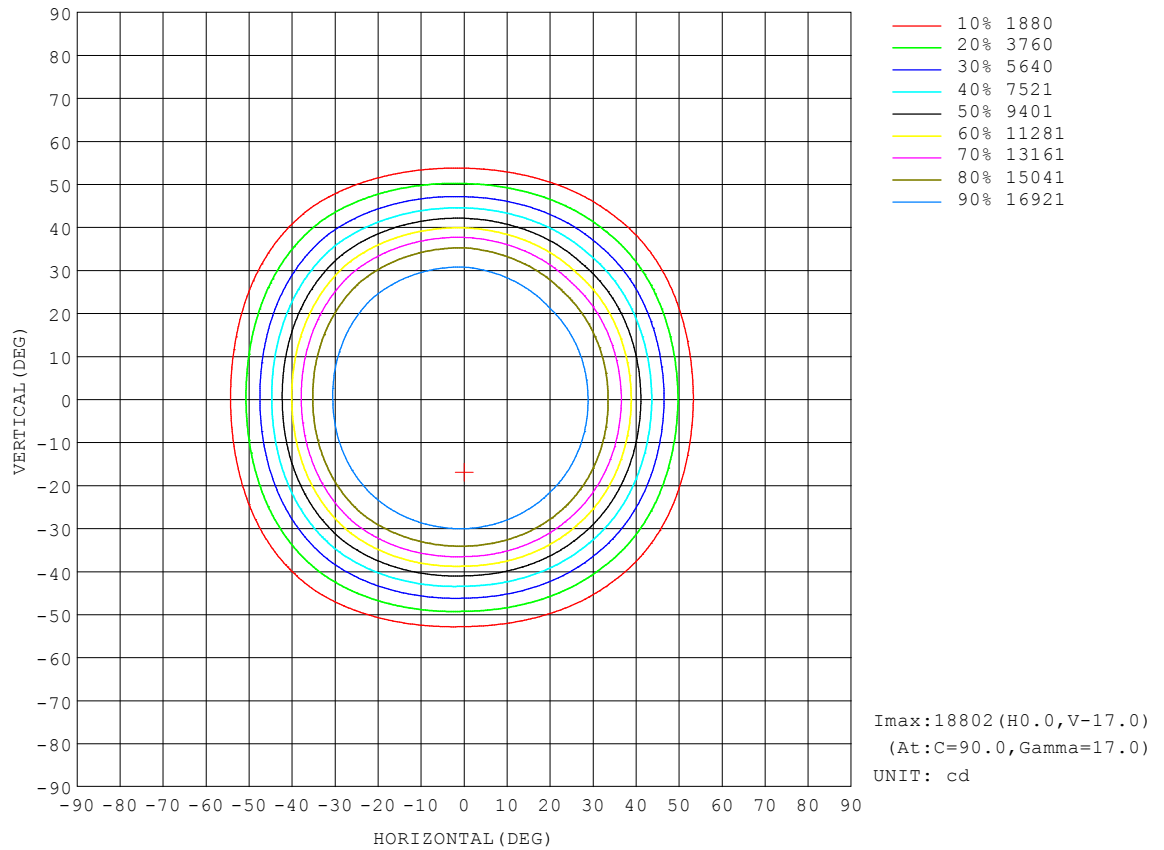
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	77	68	64	76	68	63	75	68	63	59
0.80	86	78	73	85	78	73	84	77	73	68
1.00	93	85	81	92	85	80	90	85	80	75
1.25	98	91	87	97	91	86	94	89	86	81
1.50	101	95	91	100	95	91	97	93	89	84
2.00	105	100	96	104	99	96	101	97	94	88
2.50	107	103	99	106	101	98	102	99	96	89
3.00	109	105	102	107	104	101	104	101	98	91
4.00	112	108	106	110	107	104	106	103	101	93
5.00	113	110	108	111	108	106	107	105	103	95
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.1DEG  
 Operators: Marvin Ma  
 Test Date: 2022-08-31

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm		
NAME: H17XL-RAL-240W-3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

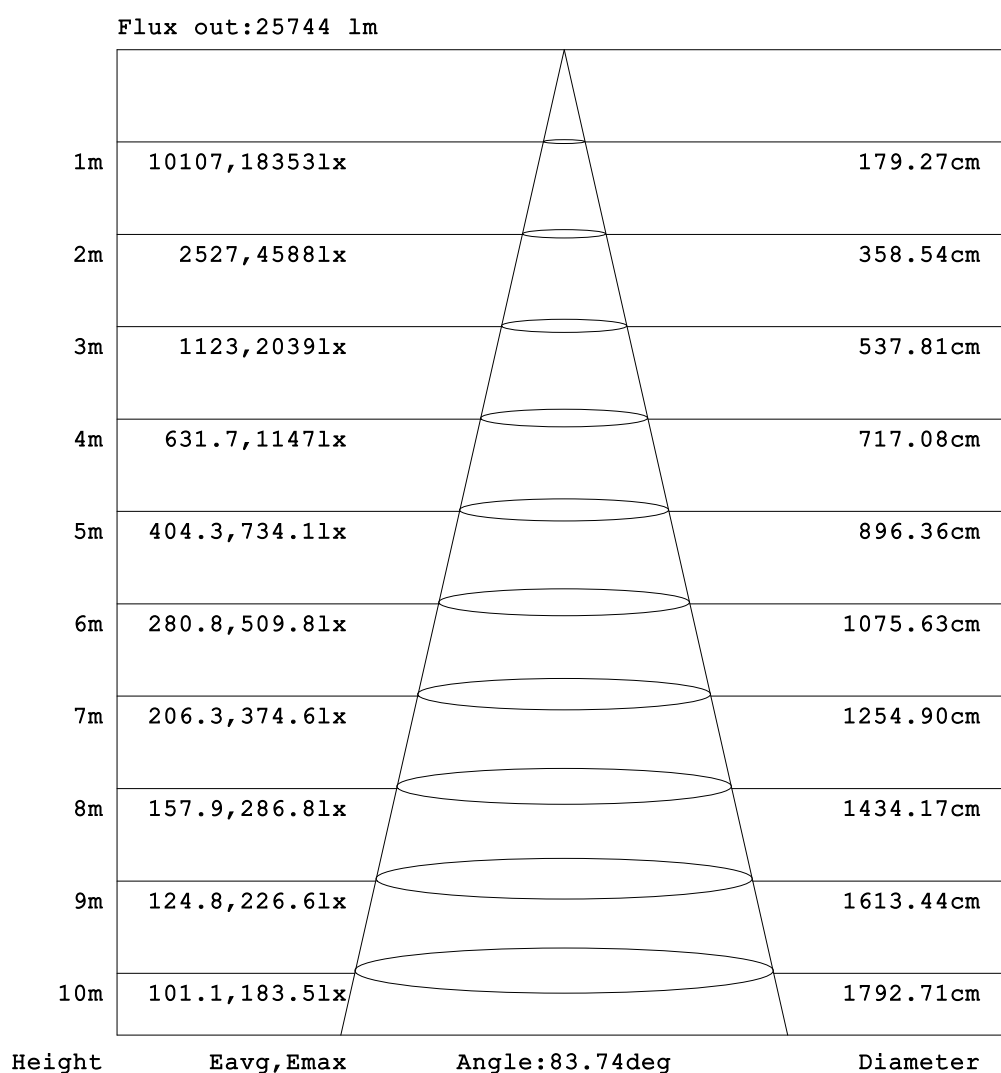


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1DEG  
Operators:Marvin Ma  
Test Date:2022-08-31

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
Humidity:56%  
Test Distance:6.500m [K=1.0000]  
Remarks:

## AAI Figure

Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm		
NAME: H17XL-RAL-240W-3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:



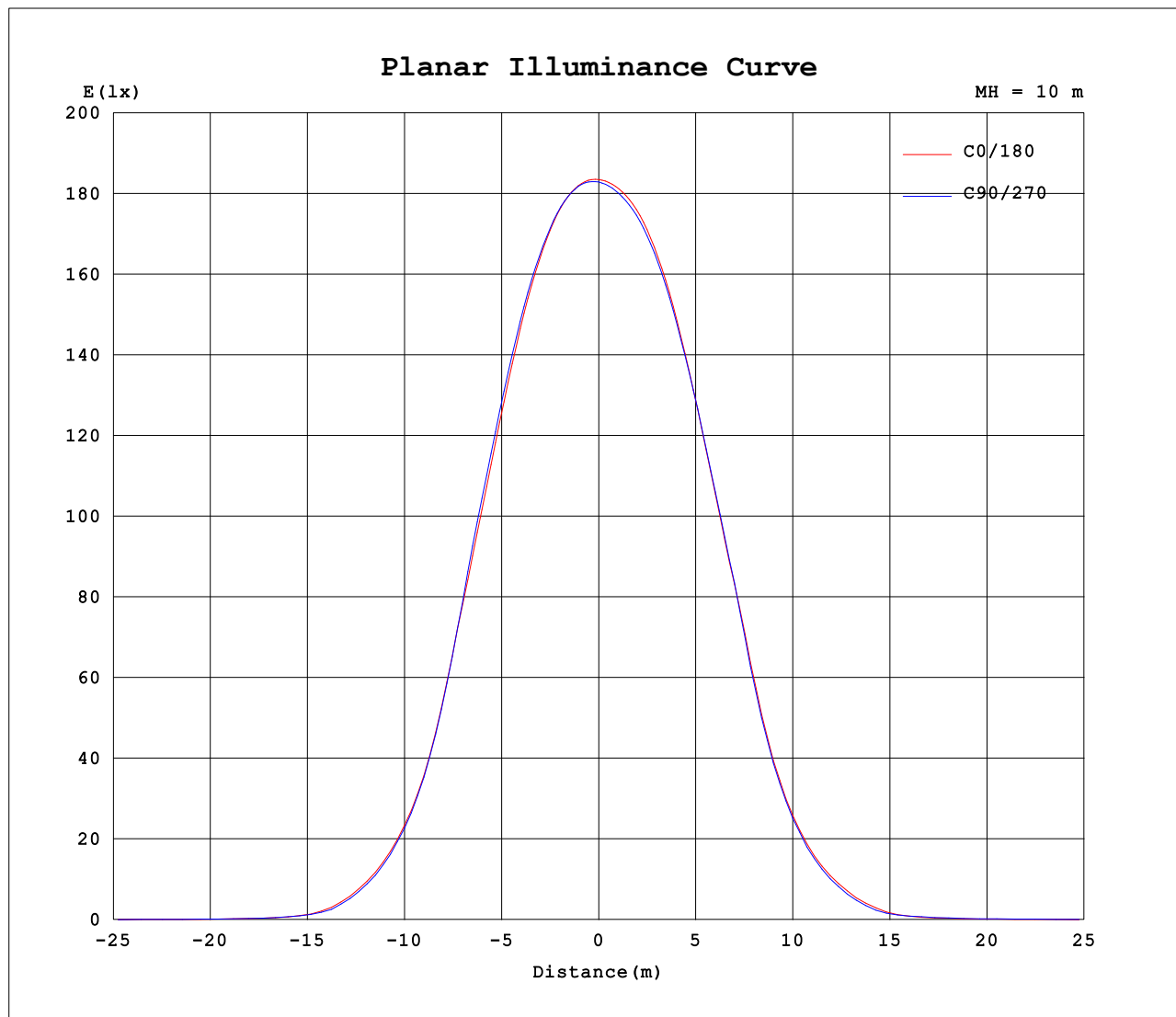
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Marvin Ma  
 Test Date:2022-08-31

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:



## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.1DEG  
Operators: Marvin Ma  
Test Date: 2022-08-31

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
Humidity: 56%  
Test Distance: 6.500m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.6V I:1.978A P:238.0W PF:0.9975 Freq:59.98Hz Lamp Flux:31652.8x1 lm								
NAME: H17XL-RAL-240W-3K					TYPE:			WEIGHT:
SPEC.:					DIM.:			SERIAL No.:
MFR.: RAB LIGHTING INC					SUR.:0.29*0.29m			Shielding Angle:

Table--1

UNIT: ×10cd

C (DEG) □ (DEG)	0	45	90	135	180	225	270	315										
0	1835	1831	1829	1826	1835	1831	1829	1826										
5	1846	1848	1844	1835	1839	1829	1828	1832										
10	1864	1867	1865	1854	1857	1843	1842	1847										
15	1872	1876	1879	1871	1875	1863	1859	1858										
20	1855	1861	1874	1867	1873	1868	1860	1845										
25	1790	1798	1823	1822	1827	1834	1823	1786										
30	1653	1660	1696	1708	1710	1733	1716	1651										
35	1425	1414	1438	1510	1515	1545	1519	1407										
40	1036	1004	1025	1122	1133	1182	1115	1007										
45	663	616	643	727	731	773	711	641										
50	362	321	337	400	415	440	384	337										
55	113	87.8	96.8	141	156	170	126	99.5										
60	34.3	30.2	35.0	40.1	39.4	49.2	46.1	36.0										
65	15.1	14.3	17.3	17.5	16.4	22.0	23.9	18.4										
70	9.58	8.98	10.9	10.7	9.68	13.9	15.8	12.0										
75	6.03	5.53	6.74	6.62	5.99	8.77	10.0	7.61										
80	3.56	3.22	3.99	3.98	3.52	5.19	5.86	4.41										
85	1.62	1.39	1.70	1.96	1.66	2.45	2.51	1.82										
90	0.75	0.65	0.67	0.69	0.58	0.60	0.66	0.69										
95	0.87	0.88	0.84	0.76	0.69	0.67	0.73	0.80										
100	1.26	1.28	1.23	1.10	1.03	0.97	1.03	1.14										
105	1.81	1.82	1.77	1.59	1.53	1.43	1.51	1.63										
110	2.50	2.53	2.48	2.24	2.19	2.06	2.17	2.29										
115	3.35	3.36	3.35	3.04	3.02	2.83	3.01	3.09										
120	4.34	4.30	4.35	3.95	4.01	3.75	4.01	4.03										
125	5.38	5.25	5.41	4.89	5.08	4.72	5.06	5.01										
130	6.48	6.20	6.52	5.85	6.24	5.73	6.20	6.02										
135	7.45	7.24	7.47	6.87	7.29	6.79	7.31	7.05										
140	8.30	8.33	8.34	7.97	8.31	8.02	8.36	8.22										
145	9.12	9.25	9.16	8.89	9.24	9.07	9.27	9.32										
150	9.94	10.1	10.0	9.78	10.2	10.0	10.2	10.3										
155	10.9	11.0	11.0	10.7	11.2	10.9	11.1	11.3										
160	12.0	12.0	12.0	11.7	12.3	12.0	12.2	12.3										
165	13.1	13.1	13.1	12.8	13.4	13.1	13.3	13.3										
170	14.1	14.0	14.1	13.8	14.3	14.0	14.2	14.2										
175	14.9	14.9	14.9	14.7	15.1	14.8	15.0	14.9										
180	15.3	15.2	15.3	15.1	15.4	15.1	15.3	15.1										

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.1DEG  
 Operators:Marvin Ma  
 Test Date:2022-08-31

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks: