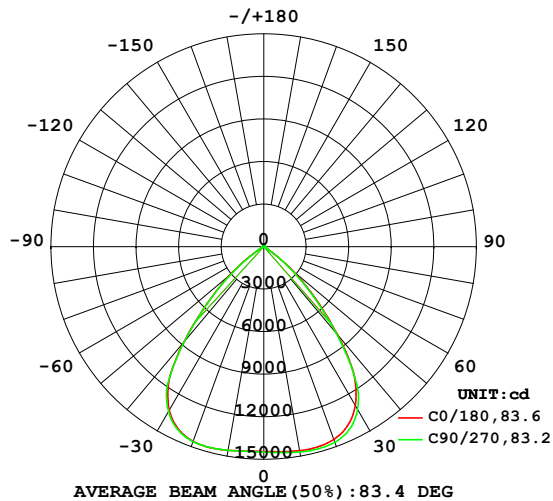


LUMINAIRE PHOTOMETRIC TEST REPORT

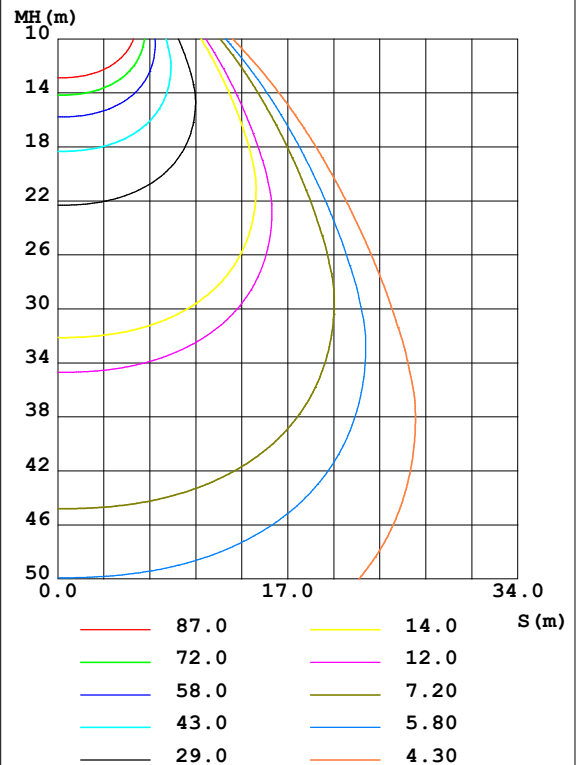
Test:U:120.6V I:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm		
NAME: H17XL-RAL-150W-4K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 163.53 lm/W			
MODEL		I _{max} (cd)	14761	S/MH(C0/180)	1.22
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	24725	□ UP,DN(C0-180)	0.5,48.7
NOMINAL FLUX(lm)	24724.7	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	1461	1467	1470	1468	1458	1455	1458	1463	0- 10	1390	1390	5.62,5.62
20	1446	1456	1467	1466	1461	1466	1462	1451	10- 20	4156	5545	22.4,22.4
30	1291	1303	1324	1337	1332	1355	1344	1295	20- 30	6502	12047	48.7,48.7
40	808.2	780.7	792.1	862.0	872.6	926.4	867.3	784.1	30- 40	6977	19024	76.9,76.9
50	281.6	250.0	258.1	312.5	318.7	342.3	305.4	263.8	40- 50	4151	23175	93.7,93.7
60	27.25	23.75	27.09	32.13	31.15	38.81	37.01	28.81	50- 60	1068	24243	98.1,98.1
70	7.422	6.935	8.367	8.309	7.560	10.82	12.33	9.348	60- 70	157.9	24401	98.7,98.7
80	2.746	2.484	3.047	3.092	2.737	4.037	4.598	3.429	70- 80	60.50	24461	98.9,98.9
90	0.5818	0.5075	0.5248	0.5389	0.4415	0.4658	0.5223	0.5403	80- 90	17.24	24478	99,99
100	0.9742	0.9884	0.9626	0.8571	0.7979	0.7538	0.7939	0.8873	90-100	6.875	24485	99,99
110	1.921	1.955	1.935	1.740	1.696	1.596	1.672	1.771	100-110	13.61	24499	99.1,99.1
120	3.344	3.319	3.391	3.059	3.103	2.905	3.096	3.122	110-120	24.16	24523	99.2,99.2
130	5.011	4.791	5.091	4.539	4.835	4.442	4.824	4.666	120-130	35.37	24558	99.3,99.3
140	6.419	6.453	6.504	6.216	6.439	6.169	6.495	6.418	130-140	43.05	24601	99.5,99.5
150	7.685	7.823	7.810	7.640	7.884	7.787	7.917	8.044	140-150	44.51	24646	99.7,99.7
160	9.253	9.308	9.366	9.111	9.476	9.316	9.464	9.573	150-160	39.44	24685	99.8,99.8
170	10.89	10.85	10.94	10.74	11.04	10.86	11.04	11.04	160-170	28.59	24714	100,100
180	11.86	11.73	11.87	11.78	11.85	11.74	11.86	11.79	170-180	10.81	24725	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 21533 lm

%lum = 87.1%

%lamp = 87.1%

Conical surface Flux(120deg): 24243 lm

%lum = 98.1%

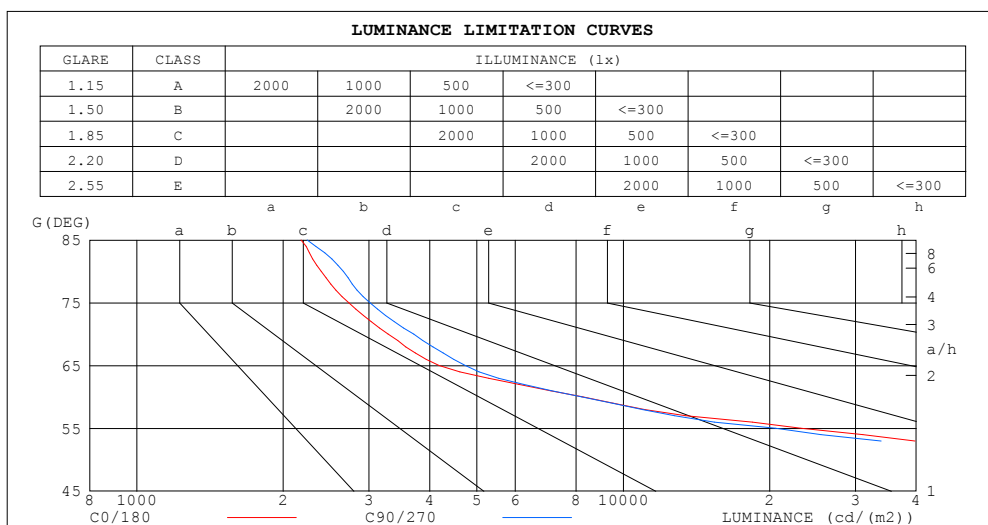
%lamp = 98.1%

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:

LUMINANCE LIMITATION CURVES

Test:U:120.6V I:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm		
NAME: H17XL-RAL-150W-4K	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	2177	2239
80	2396	2658
75	2725	3014
70	3288	3707
65	4178	4737
60	8256	8210
55	23160	20537
50	66377	60834
45	109915	105515

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:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm		
NAME: H17XL-RAL-150W-4K	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 .116 .037	.198 .113 .036	.184 .106 .034	.172 .099 .032	.161 .093 .030	
2.0	.199 .109 .034	.193 .106 .033	.182 .101 .031	.171 .096 .030	.162 .091 .029	
3.0	.192 .102 .031	.186 .100 .030	.176 .096 .029	.167 .092 .028	.159 .088 .027	
4.0	.183 .095 .028	.179 .093 .028	.170 .090 .027	.162 .087 .026	.154 .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 .022	
7.0	.159 .079 .022	.156 .078 .022	.150 .076 .022	.144 .074 .021	.138 .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	.132 .066 .019	.128 .065 .019	
10.0	.138 .066 .018	.136 .066 .018	.131 .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 .089	.061 .056 .052	.019 .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	.092 .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 .006	
7.0	.128 .080 .047	.110 .069 .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	.101 .060 .032	.070 .042 .023	.041 .025 .013	.013 .008 .004	
10.0	.113 .065 .033	.098 .056 .029	.068 .040 .020	.039 .023 .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:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm										
NAME: H17XL-RAL-150W-4K					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	25.0	26.1	25.2	26.3	26.5	24.9	26.0	25.2	26.2	26.4
3H	24.8	25.8	25.1	26.1	26.3	24.7	25.8	25.0	26.0	26.2
4H	24.7	25.7	25.0	25.9	26.2	24.6	25.6	24.9	25.9	26.1
6H	24.6	25.5	24.9	25.8	26.1	24.5	25.5	24.9	25.7	26.0
8H	24.6	25.4	24.9	25.7	26.0	24.5	25.4	24.8	25.7	25.9
12H	24.5	25.4	24.9	25.7	26.0	24.4	25.3	24.8	25.6	25.9
4H 2H	24.7	25.7	25.0	25.9	26.2	24.6	25.6	24.9	25.9	26.1
3H	24.5	25.4	24.9	25.7	26.0	24.5	25.3	24.8	25.6	25.9
4H	24.5	25.2	24.8	25.5	25.9	24.4	25.1	24.7	25.5	25.8
6H	24.4	25.0	24.8	25.4	25.8	24.3	24.9	24.7	25.3	25.7
8H	24.3	24.9	24.7	25.3	25.7	24.2	24.8	24.7	25.2	25.6
12H	24.3	24.8	24.7	25.2	25.6	24.2	24.7	24.6	25.1	25.6
8H 4H	24.3	24.9	24.7	25.3	25.7	24.2	24.8	24.7	25.2	25.6
6H	24.2	24.7	24.7	25.1	25.6	24.1	24.6	24.6	25.1	25.5
8H	24.2	24.6	24.6	25.0	25.5	24.1	24.5	24.6	25.0	25.4
12H	24.1	24.5	24.6	25.0	25.5	24.1	24.4	24.5	24.9	25.4
12H 4H	24.3	24.8	24.7	25.2	25.6	24.2	24.7	24.6	25.1	25.5
6H	24.2	24.6	24.6	25.0	25.5	24.1	24.5	24.6	25.0	25.4
8H	24.1	24.5	24.6	25.0	25.5	24.1	24.4	24.5	24.9	25.4
Variations with the observer position at spacings:										
S = 1.0H	+ 2.5 / -10.9					+ 2.5 / -10.9				
1.5H	+ 3.2 / - 8.9					+ 3.3 / - 9.2				
2.0H	+ 6.0 / -12.2					+ 6.1 / -11.6				

CIE Pub.117, 24725 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 11.1$)

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:

UTILIZATION FACTORS TABLE

Test:U:120.6V I:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm		
NAME: H17XL-RAL-150W-4K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

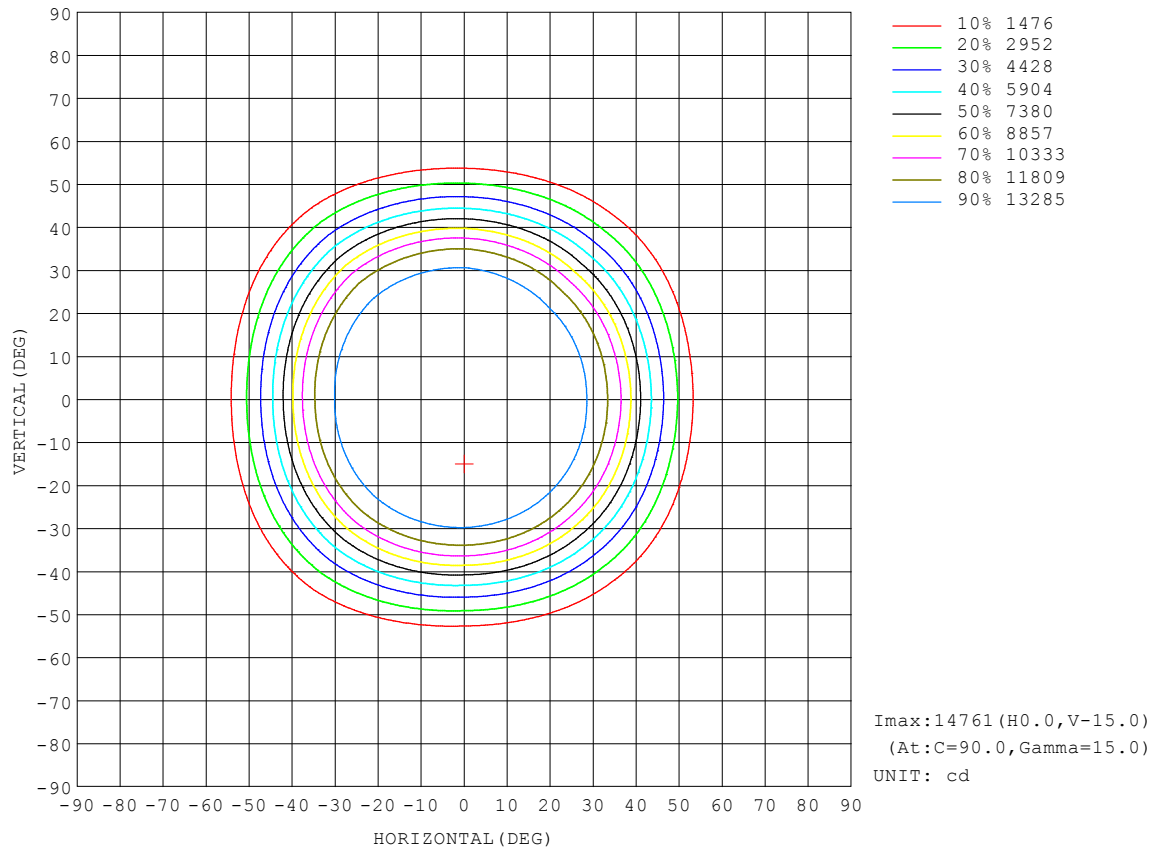
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	77	69	64	76	68	64	75	68	63	59
0.80	86	78	73	85	78	73	84	77	73	68
1.00	93	85	81	92	85	80	90	85	80	75
1.25	98	91	87	97	91	87	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	90
3.00	109	105	102	108	104	101	104	101	99	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:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm		
NAME: H17XL-RAL-150W-4K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

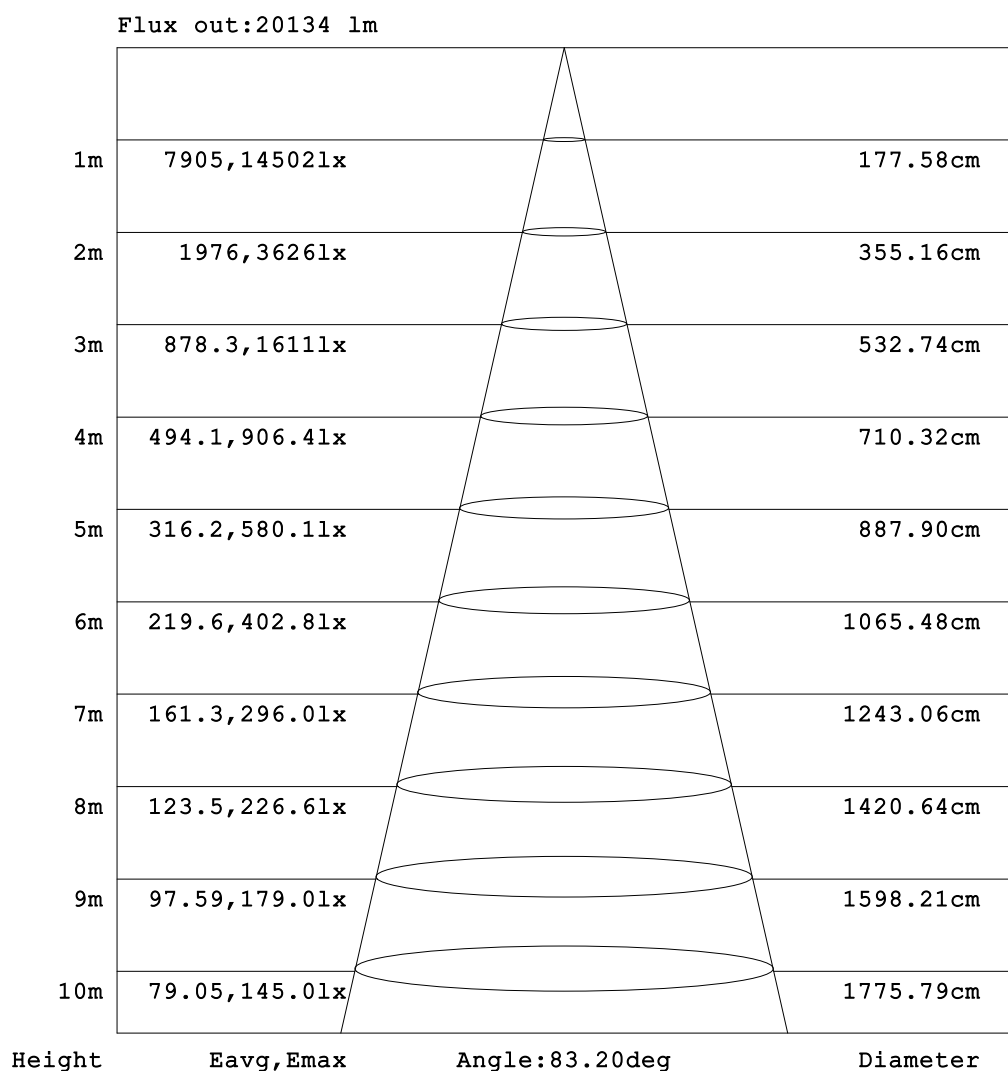


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1DEG
Operators:Marvin Ma
Test Date:2022-08-31

☐ 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:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm		
NAME: H17XL-RAL-150W-4K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:0.29*0.29m	Shielding Angle:

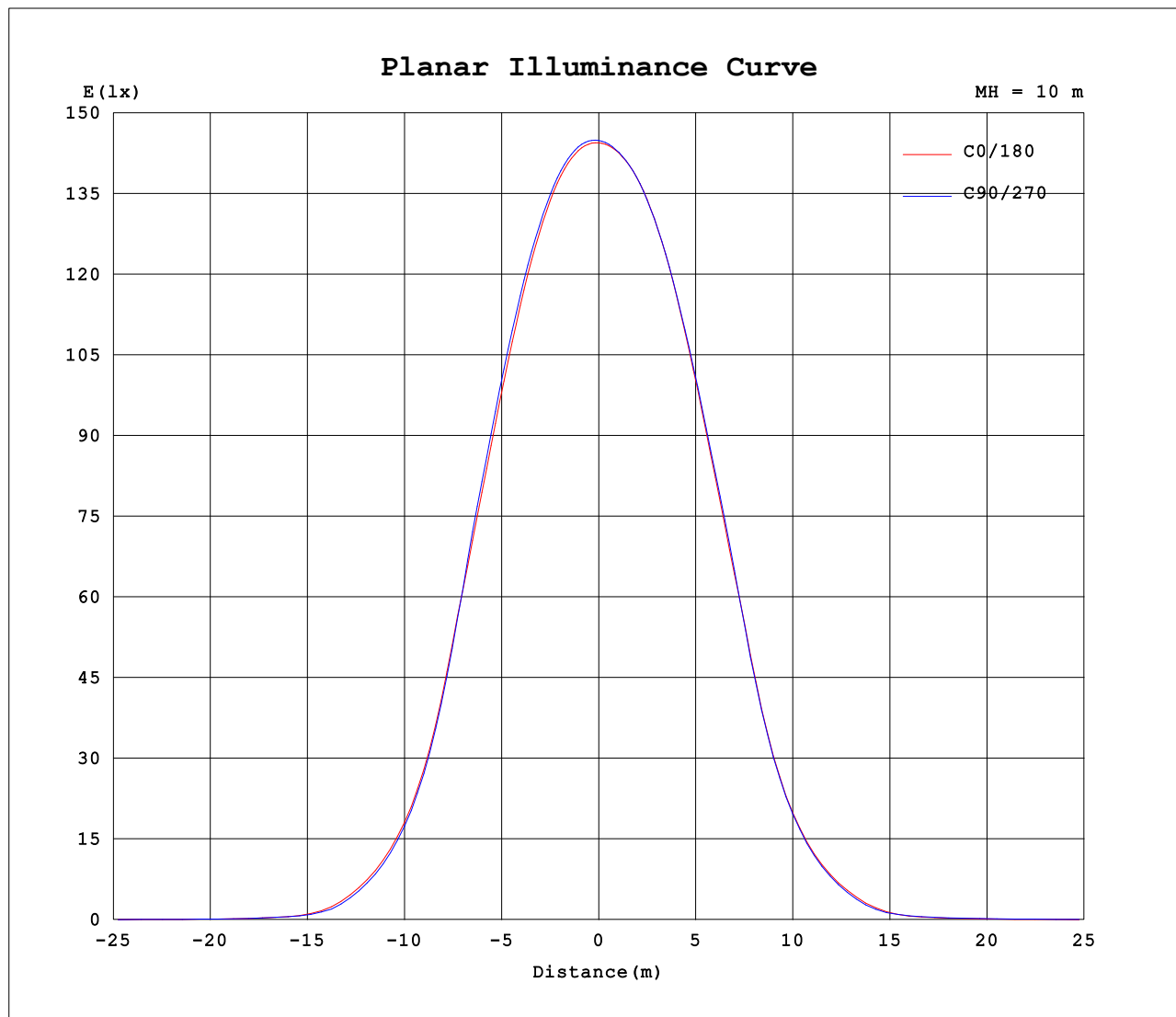


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:1.256A P:151.2W PF:0.9979 Freq:59.98Hz Lamp Flux:24724.7x1 lm		
NAME: H17XL-RAL-150W-4K	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	1445	1447	1449	1450	1445	1447	1449	1450										
5	1451	1456	1458	1456	1447	1446	1448	1454										
10	1461	1467	1470	1468	1458	1455	1458	1463										
15	1463	1470	1476	1475	1467	1467	1466	1466										
20	1446	1456	1467	1466	1461	1466	1462	1451										
25	1396	1408	1425	1427	1422	1435	1428	1401										
30	1291	1303	1324	1337	1332	1355	1344	1295										
35	1114	1102	1116	1167	1169	1211	1181	1101										
40	808	781	792	862	873	926	867	784										
45	513	482	492	557	562	605	556	496										
50	282	250	258	313	319	342	305	264										
55	87.7	67.5	77.7	114	116	128	102	79.8										
60	27.2	23.8	27.1	32.1	31.2	38.8	37.0	28.8										
65	11.7	11.1	13.2	13.6	12.5	17.1	18.7	14.3										
70	7.42	6.94	8.37	8.31	7.56	10.8	12.3	9.35										
75	4.66	4.27	5.15	5.15	4.68	6.84	7.84	5.91										
80	2.75	2.48	3.05	3.09	2.74	4.04	4.60	3.43										
85	1.25	1.08	1.29	1.52	1.29	1.90	2.01	1.43										
90	0.58	0.51	0.52	0.54	0.44	0.47	0.52	0.54										
95	0.68	0.68	0.66	0.59	0.53	0.52	0.56	0.63										
100	0.97	0.99	0.96	0.86	0.80	0.75	0.79	0.89										
105	1.39	1.41	1.39	1.24	1.18	1.11	1.16	1.27										
110	1.92	1.95	1.93	1.74	1.70	1.60	1.67	1.77										
115	2.59	2.60	2.61	2.35	2.33	2.19	2.31	2.39										
120	3.34	3.32	3.39	3.06	3.10	2.91	3.10	3.12										
125	4.15	4.05	4.22	3.79	3.94	3.66	3.93	3.88										
130	5.01	4.79	5.09	4.54	4.84	4.44	4.82	4.67										
135	5.76	5.59	5.83	5.34	5.65	5.26	5.69	5.47										
140	6.42	6.45	6.50	6.22	6.44	6.17	6.49	6.42										
145	7.05	7.17	7.15	6.96	7.15	7.02	7.21	7.25										
150	7.69	7.82	7.81	7.64	7.88	7.79	7.92	8.04										
155	8.42	8.52	8.55	8.33	8.64	8.51	8.65	8.80										
160	9.25	9.31	9.37	9.11	9.48	9.32	9.46	9.57										
165	10.1	10.1	10.2	9.95	10.3	10.1	10.3	10.4										
170	10.9	10.8	10.9	10.7	11.0	10.9	11.0	11.0										
175	11.6	11.5	11.6	11.5	11.6	11.5	11.6	11.6										
180	11.9	11.7	11.9	11.8	11.8	11.7	11.9	11.8										

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: