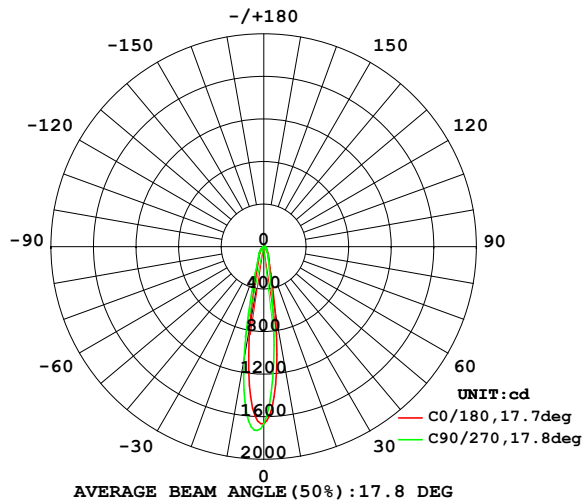


LUMINAIRE PHOTOMETRIC TEST REPORT

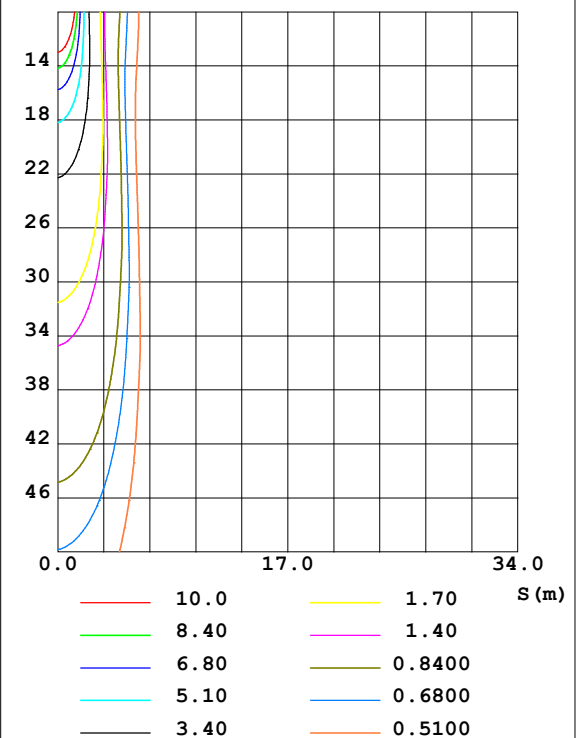
NAME: MR16 4W 2700K 15Degree	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance.led.llc	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax (cd)	1730	S/MH (C0/180)	0.29
NOMINAL POWER(W)	12	LOR(%)	80.3	S/MH (C90/270)	0.23
RATED VOLTAGE(V)	0	TOTAL FLUX(lm)	347.81	η UP,DN(C0-180)	0.0,33.4
NOMINAL FLUX(lm)	432.994	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,47.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	0.0	η down (%)	80.3	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Zhu
 Test Date:2020-06-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.280
 Humidity:65.0%
 Test Distance:5.833m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	629.2	490.7	438.9	498.2	746.9	952.7	1076	939.6	0- 10	108.4	108.4	31.2, 25
20	151.4	138.4	134.7	139.6	163.8	187.0	202.0	187.5	10- 20	91.29	199.7	57.4, 46.1
30	82.75	77.36	75.11	78.31	87.66	95.28	98.32	93.68	20- 30	53.01	252.7	72.7, 58.4
40	46.63	41.99	39.48	42.91	50.28	56.65	59.93	55.35	30- 40	41.56	294.3	84.6, 68
50	21.80	19.36	18.35	19.96	23.82	27.34	29.42	27.03	40- 50	26.76	321.1	92.3, 74.1
60	10.69	9.345	9.033	9.665	11.31	12.76	13.85	13.07	50- 60	14.69	335.7	96.5, 77.5
70	5.223	4.508	4.232	4.610	5.254	5.889	6.546	6.384	60- 70	7.890	343.6	98.8, 79.4
80	1.664	1.415	1.132	1.224	1.564	1.832	2.278	2.218	70- 80	3.561	347.2	99.8, 80.2
90	0.0213	0.0173	0.0175	0.0196	0.0021	0	0	0.0022	80- 90	0.6196	347.8	100, 80.3
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

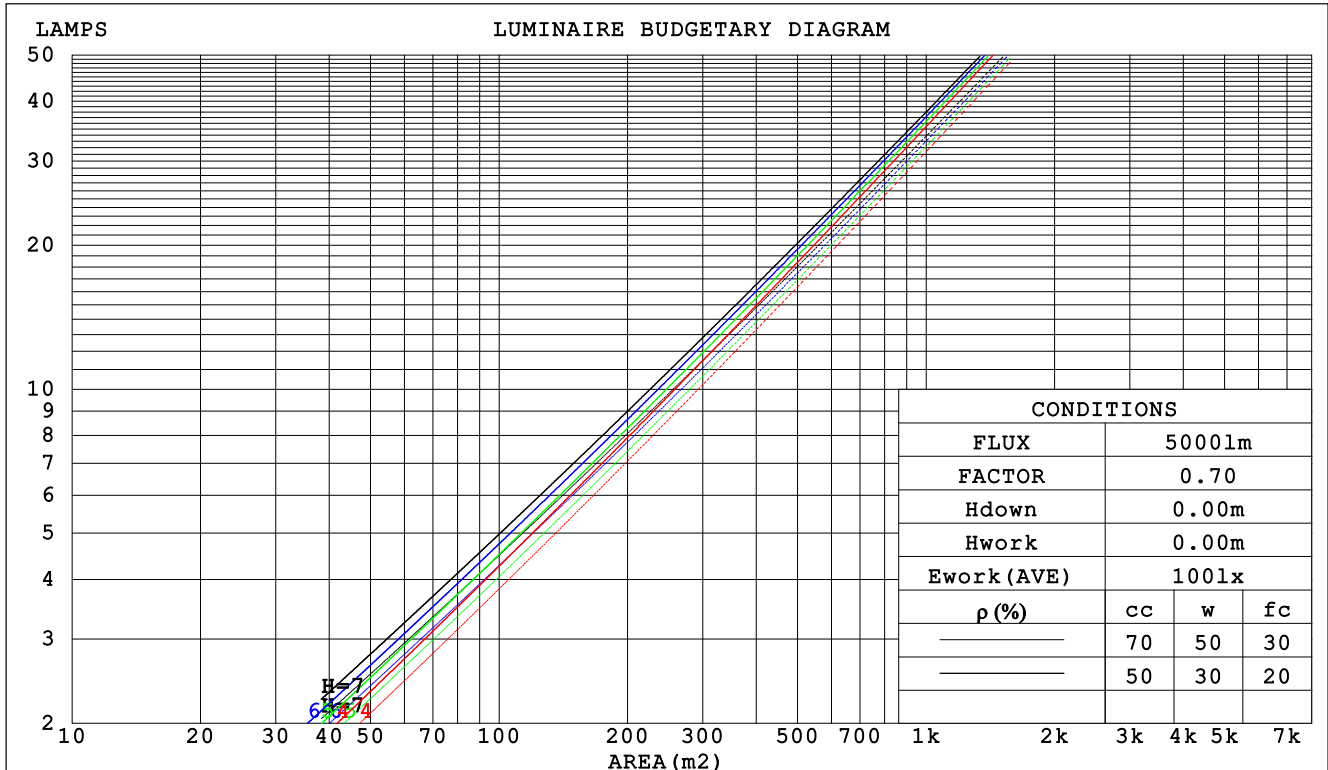
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Zhu
 Test Date: 2020-06-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.280
 Humidity: 65.0%
 Test Distance: 5.833m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: MR16 4W 2700K 15Degree	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance.led.llc	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	.96	.96	.96	.93	.93	.93	.89	.89	.89	.85	.85	.85	.82	.82	.82	.80
1.0	.89	.87	.85	.87	.86	.84	.84	.83	.81	.81	.80	.79	.78	.78	.77	.75
2.0	.83	.80	.78	.82	.79	.77	.79	.77	.75	.77	.75	.73	.75	.73	.72	.71
3.0	.78	.74	.71	.77	.74	.71	.75	.72	.70	.73	.71	.69	.71	.69	.68	.66
4.0	.74	.70	.67	.73	.69	.66	.71	.68	.65	.70	.67	.65	.68	.66	.64	.63
5.0	.70	.66	.62	.69	.65	.62	.68	.64	.62	.67	.64	.61	.65	.63	.61	.60
6.0	.67	.62	.59	.66	.62	.59	.65	.61	.59	.64	.61	.58	.63	.60	.58	.57
7.0	.64	.59	.56	.63	.59	.56	.62	.59	.56	.61	.58	.56	.60	.57	.55	.54
8.0	.61	.57	.54	.61	.57	.54	.60	.56	.54	.59	.56	.53	.58	.55	.53	.52
9.0	.59	.54	.52	.58	.54	.52	.58	.54	.51	.57	.54	.51	.56	.53	.51	.50
10.0	.57	.52	.50	.56	.52	.50	.56	.52	.50	.55	.52	.49	.54	.51	.49	.48



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Zhu
 Test Date: 2020-06-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.280
 Humidity: 65.0%
 Test Distance: 5.833m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME: MR16 4W 2700K 15Degree	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance.led.llc	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.140	.079	.025	.134	.077	.024	.124	.071	.023	.115	.066	.021	.106	.062	.020	
2.0	.132	.073	.022	.128	.070	.022	.119	.066	.021	.112	.063	.020	.104	.059	.019	
3.0	.124	.066	.020	.120	.064	.019	.113	.061	.019	.107	.058	.018	.100	.056	.017	
4.0	.117	.061	.018	.113	.059	.018	.107	.057	.017	.101	.054	.016	.096	.052	.016	
5.0	.110	.056	.016	.107	.055	.016	.101	.053	.016	.096	.051	.015	.092	.049	.015	
6.0	.103	.052	.015	.101	.051	.015	.096	.049	.014	.092	.048	.014	.088	.046	.014	
7.0	.097	.048	.014	.095	.047	.014	.091	.046	.013	.087	.045	.013	.084	.044	.013	
8.0	.092	.045	.013	.090	.044	.013	.087	.043	.012	.083	.042	.012	.080	.041	.012	
9.0	.088	.042	.012	.086	.042	.012	.083	.041	.012	.080	.040	.011	.077	.039	.011	
10.0	.083	.040	.011	.082	.040	.011	.079	.039	.011	.076	.038	.011	.074	.037	.011	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.153	.153	.153	.131	.131	.131	.089	.089	.089	.051	.051	.051	.016	.016	.016	
1.0	.137	.126	.117	.117	.108	.100	.080	.075	.069	.046	.043	.040	.015	.014	.013	
2.0	.125	.106	.091	.107	.092	.079	.073	.063	.055	.042	.037	.032	.014	.012	.010	
3.0	.114	.091	.073	.098	.079	.063	.067	.055	.044	.039	.032	.026	.012	.010	.009	
4.0	.105	.079	.059	.090	.068	.052	.062	.048	.036	.036	.028	.021	.012	.009	.007	
5.0	.098	.070	.049	.084	.060	.043	.058	.042	.030	.033	.025	.018	.011	.008	.006	
6.0	.091	.062	.041	.078	.054	.036	.054	.038	.025	.031	.022	.015	.010	.007	.005	
7.0	.085	.056	.035	.073	.048	.031	.051	.034	.022	.029	.020	.013	.010	.007	.004	
8.0	.080	.051	.030	.069	.044	.026	.048	.031	.019	.028	.018	.011	.009	.006	.004	
9.0	.076	.046	.026	.065	.040	.023	.045	.028	.016	.026	.017	.010	.009	.005	.003	
10.0	.071	.043	.023	.062	.037	.020	.043	.026	.014	.025	.015	.009	.008	.005	.003	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Zhu
Test Date:2020-06-11

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity:65.0%
Test Distance:5.833m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: MR16 4W 2700K 15Degree					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.: Brilliance.led.llc					SUR.:					PROTECTION 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					4.5	5.4	4.7	5.5	5.7	3.8	4.6	4.0	4.8	5.0
3H					5.0	5.8	5.3	6.0	6.2	4.2	5.0	4.5	5.2	5.4
4H					5.2	5.9	5.4	6.2	6.4	4.3	5.1	4.6	5.3	5.5
6H					5.3	6.0	5.6	6.2	6.5	4.4	5.1	4.7	5.3	5.6
8H					5.3	6.0	5.6	6.2	6.5	4.3	5.0	4.7	5.3	5.6
12H					5.2	5.9	5.6	6.2	6.5	4.3	5.0	4.6	5.2	5.5
4H 2H					4.6	5.4	4.9	5.6	5.8	4.0	4.7	4.2	4.9	5.2
3H					5.2	5.9	5.5	6.2	6.4	4.5	5.2	4.8	5.5	5.7
4H					5.5	6.1	5.8	6.4	6.7	4.7	5.3	5.1	5.6	5.9
6H					5.6	6.2	6.0	6.5	6.9	4.8	5.3	5.2	5.7	6.0
8H					5.7	6.2	6.0	6.5	6.9	4.8	5.3	5.2	5.6	6.0
12H					5.6	6.1	6.0	6.5	6.9	4.7	5.2	5.2	5.6	6.0
8H 4H					5.5	6.0	5.9	6.3	6.7	4.8	5.3	5.1	5.6	6.0
6H					5.7	6.1	6.1	6.5	6.9	4.9	5.3	5.3	5.7	6.1
8H					5.7	6.1	6.2	6.5	6.9	4.9	5.3	5.3	5.7	6.1
12H					5.7	6.0	6.2	6.5	6.9	4.8	5.2	5.3	5.6	6.1
12H 4H					5.4	5.9	5.9	6.3	6.7	4.7	5.2	5.1	5.6	5.9
6H					5.7	6.0	6.1	6.4	6.9	4.9	5.2	5.3	5.6	6.1
8H					5.7	6.0	6.2	6.5	6.9	4.9	5.2	5.3	5.6	6.1
Variations with the observer position at spacings:														
S = 1.0H					+ 0.9 / - 1.2					+ 1.0 / - 1.3				
1.5H					+ 1.5 / - 1.0					+ 1.2 / - 1.0				
2.0H					+ 2.0 / - 1.4					+ 1.8 / - 1.2				

CIE Pub.117 Corrected 433.0 lm Total Lamp Luminous Flux.(8log(F/F0) = -2.9)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Zhu
Test Date:2020-06-11

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity:65.0%
Test Distance:5.833m [K=1.0000]
Remarks:

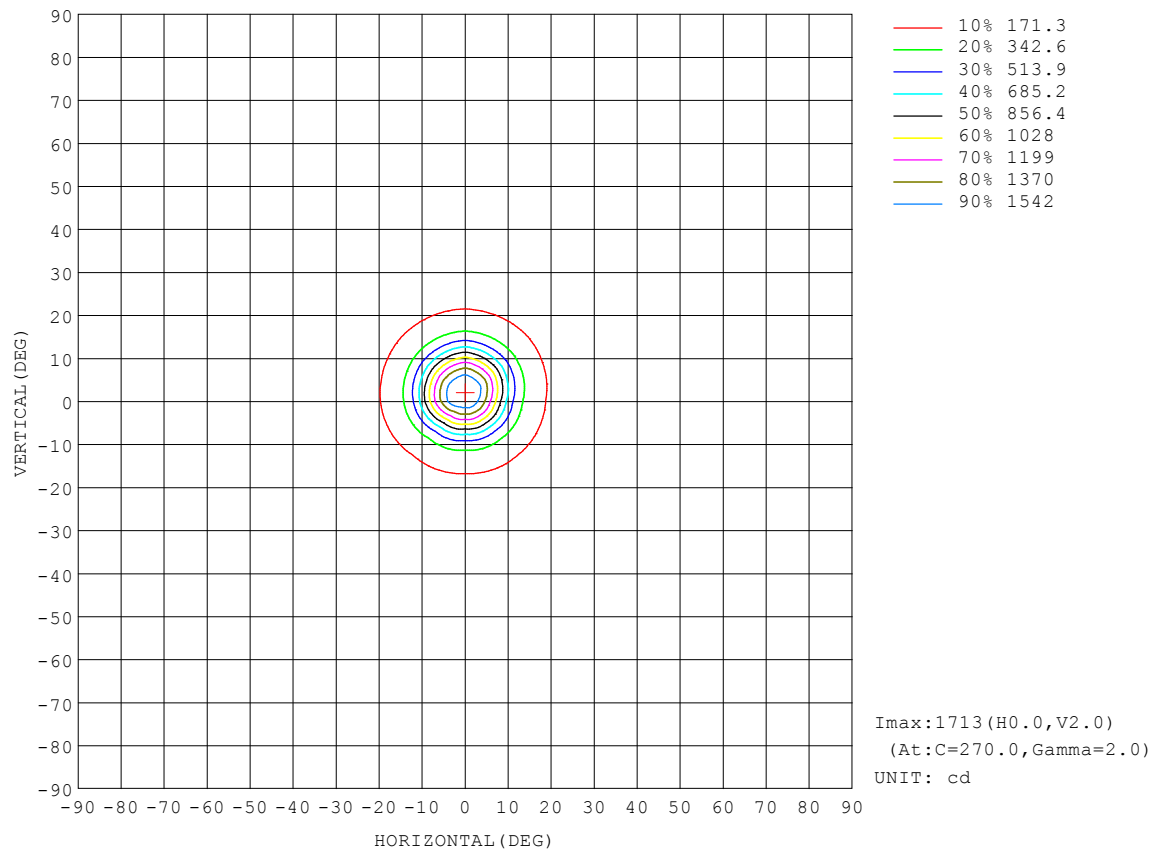
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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity:65.0%
Test Distance:5.833m [K=1.0000]
Remarks:

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ISOCANDELA DIAGRAM

NAME: MR16 4W 2700K 15Degree	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance.led.llc	SUR.:	PROTECTION ANGLE:

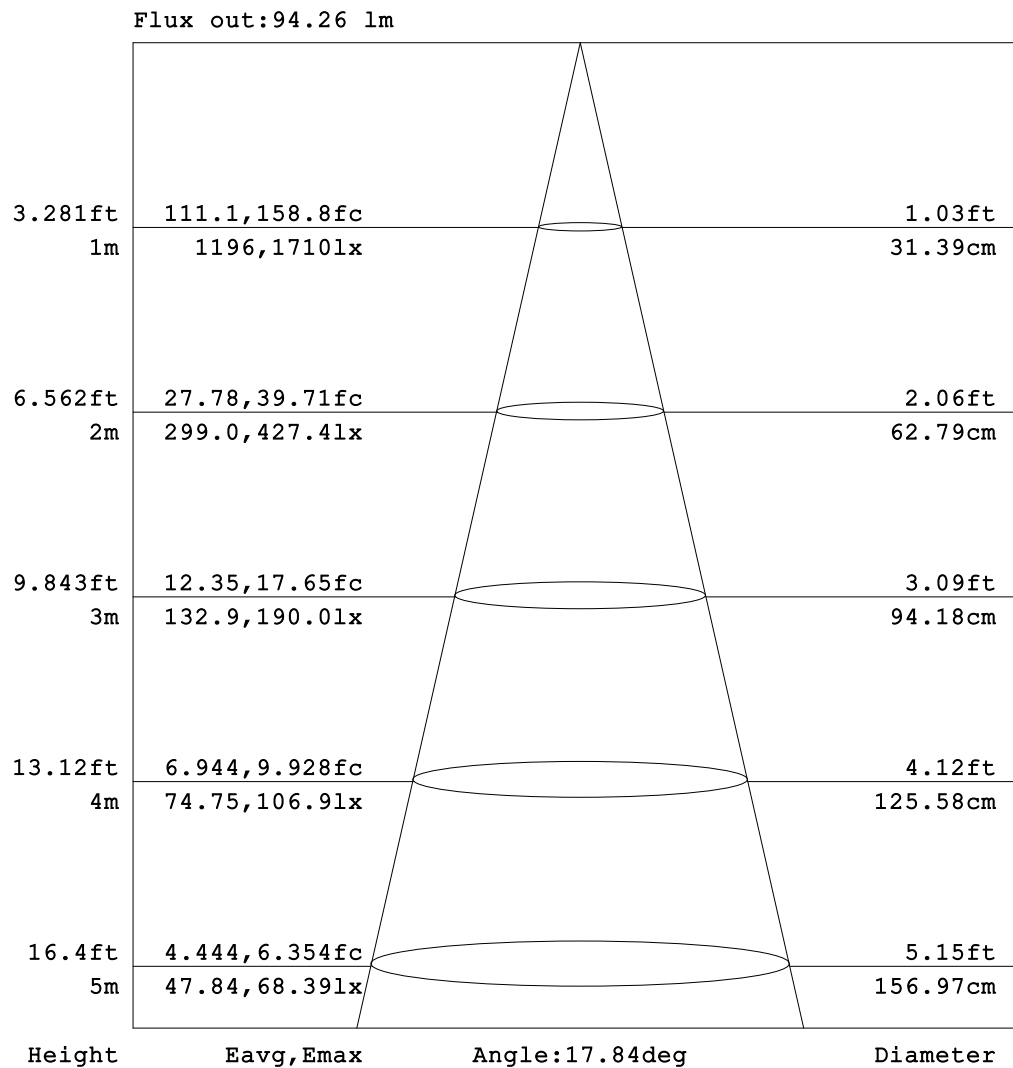


C Range: 0 - 360DEG
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity:65.0%
Test Distance:5.833m [K=1.0000]
Remarks:

AAI Figure

NAME: MR16 4W 2700K 15Degree	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance.led.llc	SUR.:	PROTECTION ANGLE:



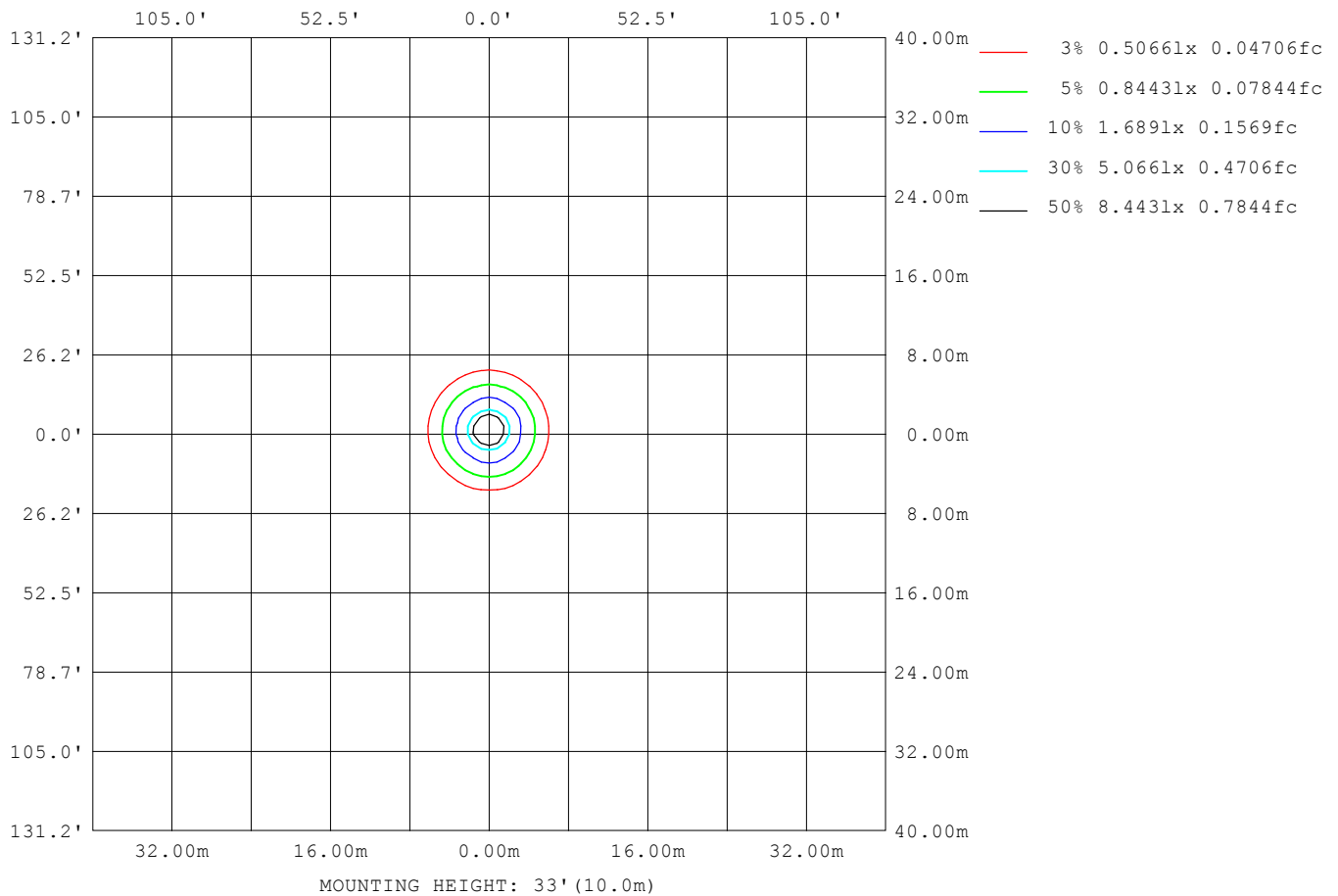
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Zhu
Test Date: 2020-06-11

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity: 65.0%
Test Distance: 5.833m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

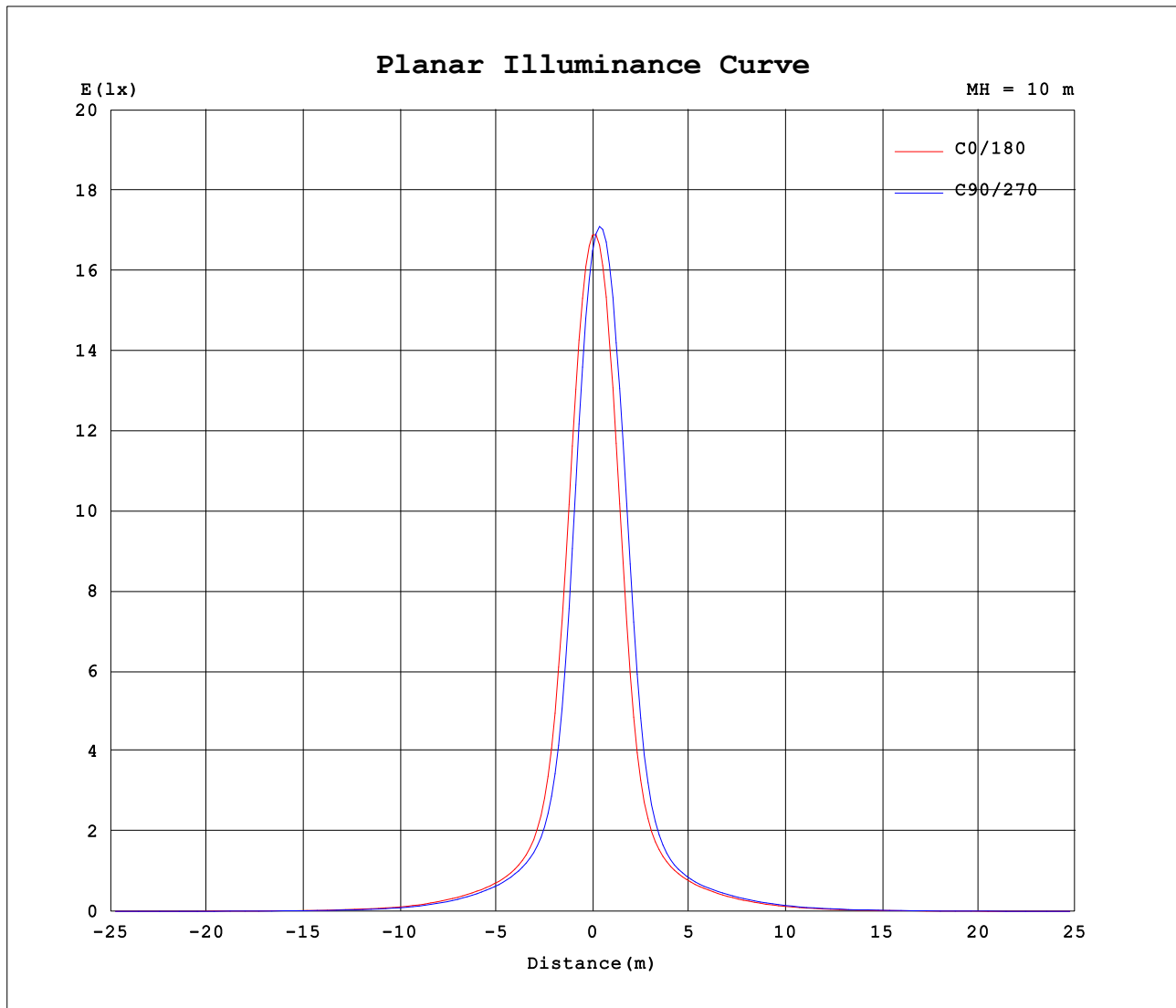
NAME: MR16 4W 2700K 15Degree	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance.led.llc	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Zhu
Test Date: 2020-06-11

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity: 65.0%
Test Distance: 5.833m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Zhu
Test Date: 2020-06-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity: 65.0%
Test Distance: 5.833m [K=1.0000]
Remarks:

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.280
Humidity:65.0%
Test Distance:5.833m [K=1.0000]
Remarks:

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