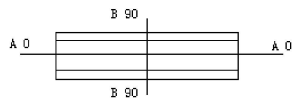
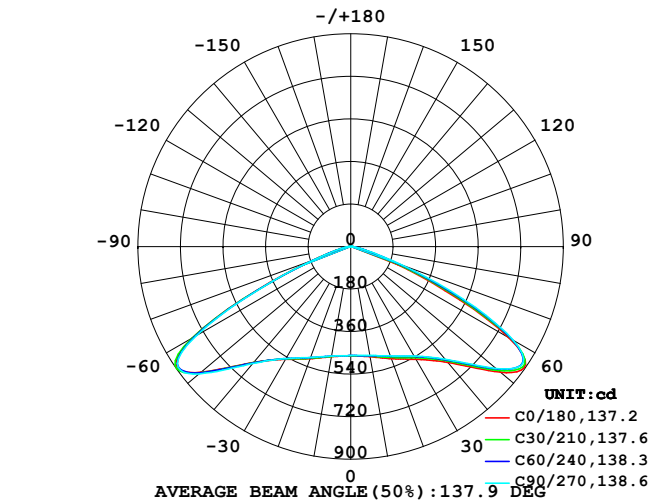


LUMINAIRE PHOTOMETRIC TEST REPORT

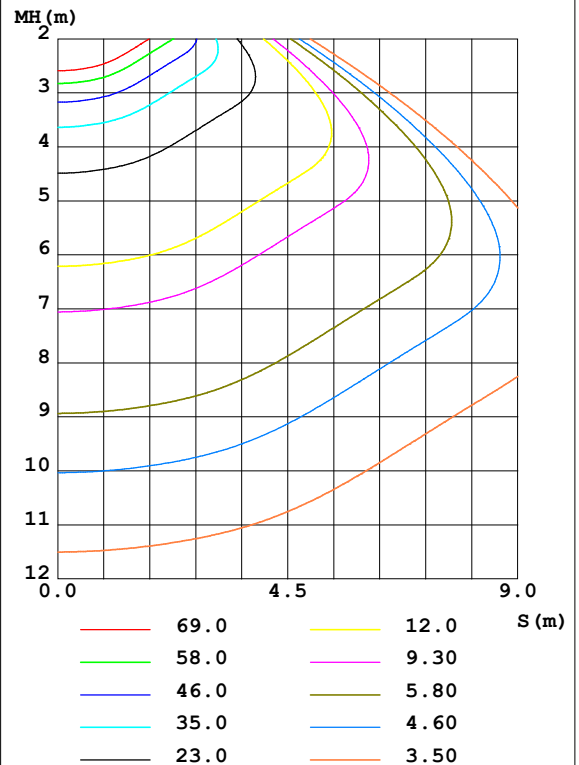
Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 134.47 lm/W			
MODEL		Imax(cd)	899.9	S/MH(C0/180)	2.34
NOMINAL POWER(W)	20.1	LOR(%)	100.0	S/MH(C90/270)	2.33
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	2702.8	η UP,DN(C0-180)	0.2,49.9
NOMINAL FLUX(lm)	2702.8	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.4,49.4
LAMPS INSIDE	1	η up(%)	0.7	CIBSE SHR NOM	2.00
TEST VOLTAGE(V)	24	η down(%)	99.3	CIBSE SHR MAX	2.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7125]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	473.2	470.1	468.2	470.1	473.2	471.3	470.4	471.3	0- 10	44.51	44.51	1.65,1.65
20	504.9	496.8	492.4	496.8	504.9	501.7	499.5	501.7	10- 20	137.6	182.1	6.74,6.74
30	550.7	540.1	535.1	540.1	550.7	548.1	547.0	548.1	20- 30	241.5	423.6	15.7,15.7
40	640.5	628.8	622.7	628.8	640.5	641.7	646.2	641.7	30- 40	368.3	791.9	29.3,29.3
50	827.3	810.4	802.3	810.4	827.3	830.6	838.8	830.6	40- 50	560.6	1352	50,50
60	775.0	788.4	795.1	788.4	775.0	770.9	756.3	770.9	50- 60	770.3	2123	78.5,78.5
70	174.5	208.2	236.0	208.2	174.5	169.9	167.2	169.9	60- 70	461.8	2585	95.6,95.6
80	27.11	28.68	32.19	28.68	27.11	27.38	27.03	27.38	70- 80	87.87	2673	98.9,98.9
90	3.419	2.535	2.643	2.535	3.419	4.495	4.383	4.495	80- 90	12.52	2685	99.3,99.3
100	2.469	1.635	1.657	1.635	2.469	3.405	3.400	3.405	90-100	3.090	2688	99.5,99.5
110	2.487	1.666	1.648	1.666	2.487	3.388	3.376	3.388	100-110	2.630	2691	99.6,99.6
120	2.639	1.798	1.792	1.798	2.639	3.582	3.576	3.582	110-120	2.577	2693	99.6,99.6
130	2.766	1.867	1.861	1.867	2.766	3.790	3.771	3.790	120-130	2.467	2696	99.7,99.7
140	2.863	1.948	1.959	1.948	2.863	3.948	3.940	3.948	130-140	2.224	2698	99.8,99.8
150	3.048	2.247	2.249	2.247	3.048	4.020	4.026	4.020	140-150	1.894	2700	99.9,99.9
160	3.317	2.686	2.691	2.686	3.317	4.100	4.113	4.100	150-160	1.497	2701	99.9,99.9
170	3.761	3.472	3.514	3.472	3.761	4.253	4.280	4.253	160-170	1.012	2702	100,100
180	4.066	4.141	4.141	4.141	4.066	4.140	4.144	4.140	170-180	0.3809	2703	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1041.7 lm

%lum = 38.5%

%lamp = 38.5%

Conical surface Flux(120deg): 2122.8 lm

%lum = 78.5%

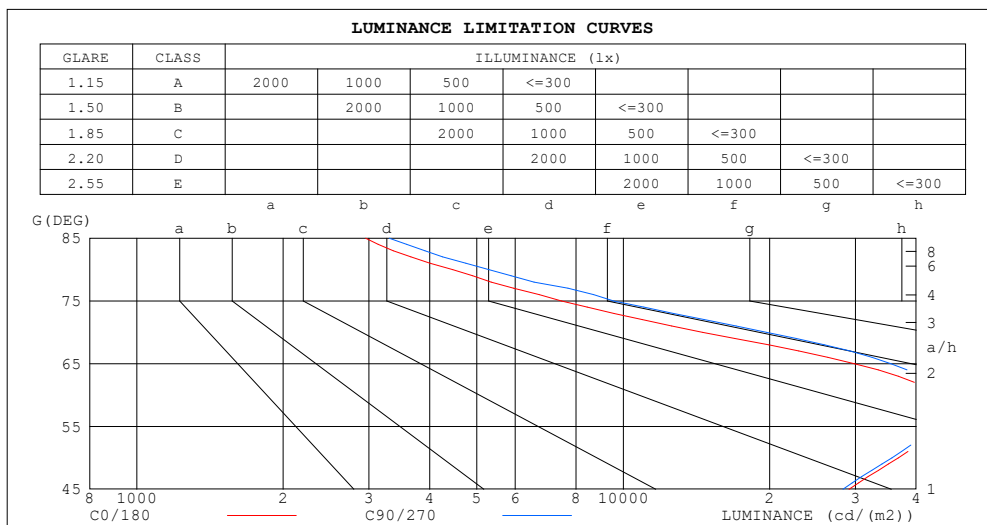
%lamp = 78.5%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
 Humidity:65.0%
 Test Distance:8.000m [K=0.7125]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2954	3305
80	4460	5297
75	7472	9565
70	14578	19716
65	29880	35530
60	44286	45435
55	44598	43741
50	36773	35660
45	29128	28275

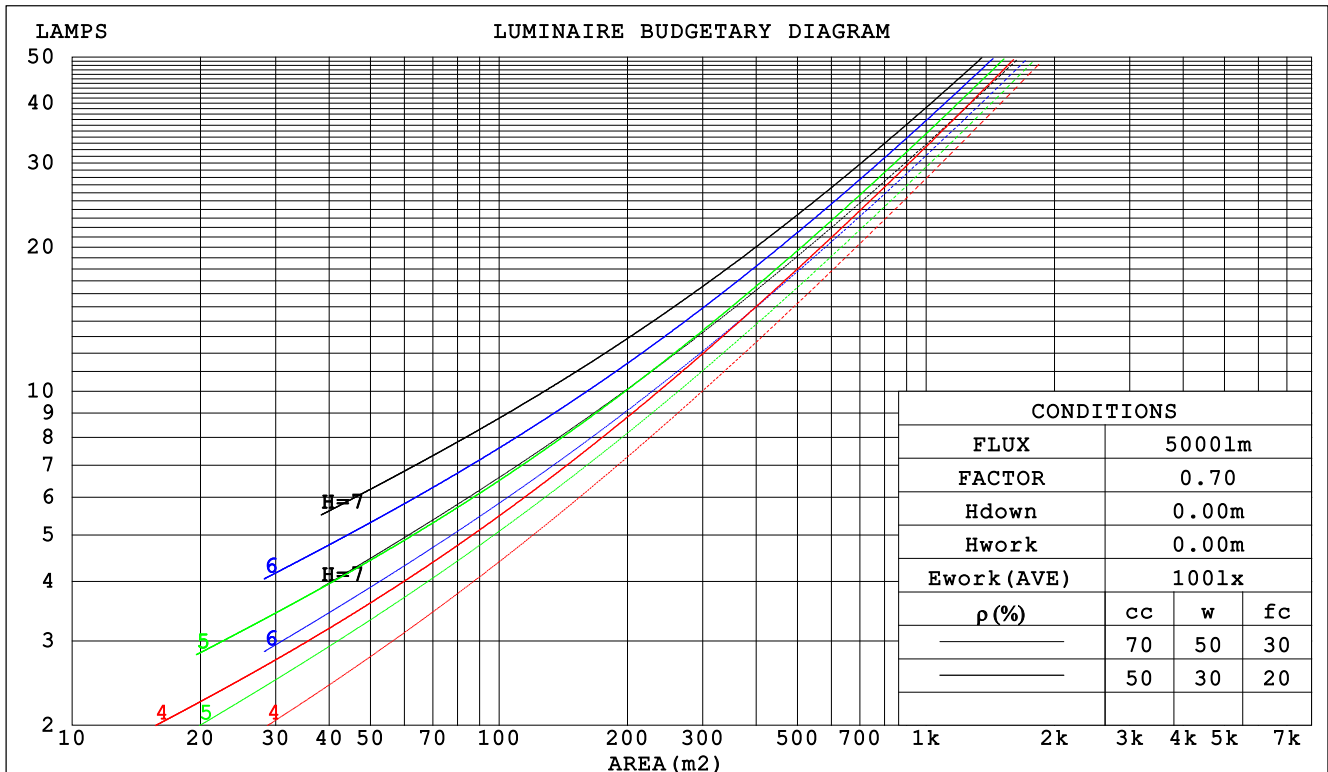
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz		
Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	.99
1.0	1.04	.99	.96	1.01	.98	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.89	.82	.76	.87	.80	.75	.83	.78	.73	.80	.75	.71	.77	.73	.70	.67
3.0	.77	.68	.61	.75	.67	.60	.72	.65	.59	.69	.63	.58	.66	.61	.57	.54
4.0	.66	.57	.49	.65	.56	.49	.62	.54	.48	.60	.53	.47	.57	.51	.47	.44
5.0	.58	.48	.41	.57	.47	.40	.54	.46	.40	.52	.45	.39	.50	.44	.39	.37
6.0	.51	.41	.34	.50	.41	.34	.48	.40	.33	.46	.39	.33	.44	.38	.33	.30
7.0	.45	.36	.29	.44	.35	.29	.43	.34	.28	.41	.34	.28	.40	.33	.28	.26
8.0	.40	.31	.25	.40	.31	.25	.38	.30	.25	.37	.30	.24	.36	.29	.24	.22
9.0	.37	.28	.22	.36	.27	.22	.35	.27	.21	.33	.26	.21	.32	.26	.21	.19
10.0	.33	.25	.19	.33	.25	.19	.32	.24	.19	.31	.24	.19	.30	.23	.19	.17



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

WEC AND CCEC

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz		
Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		

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	.309	.176	.056	.302	.172	.055	.288	.165	.053	.275	.159	.051	.264	.153	.049		
2.0	.304	.166	.051	.297	.164	.050	.285	.158	.049	.274	.154	.048	.263	.149	.047		
3.0	.287	.153	.046	.281	.151	.045	.271	.147	.045	.261	.143	.044	.251	.139	.043		
4.0	.268	.139	.041	.263	.138	.041	.253	.134	.040	.244	.131	.040	.236	.128	.039		
5.0	.249	.127	.037	.245	.126	.037	.236	.123	.036	.228	.120	.036	.220	.118	.035		
6.0	.231	.116	.033	.227	.115	.033	.219	.112	.033	.212	.110	.032	.205	.108	.032		
7.0	.215	.106	.030	.211	.105	.030	.204	.103	.030	.198	.101	.029	.192	.100	.029		
8.0	.200	.098	.028	.197	.097	.027	.191	.095	.027	.185	.094	.027	.179	.092	.027		
9.0	.187	.091	.025	.184	.090	.025	.179	.088	.025	.173	.087	.025	.168	.085	.025		
10.0	.175	.084	.023	.173	.083	.023	.168	.082	.023	.163	.081	.023	.158	.080	.023		

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	.195	.195	.195	.167	.167	.167	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.185	.161	.139	.159	.138	.120	.108	.095	.083	.062	.055	.048	.020	.018	.016	
2.0	.179	.137	.102	.153	.118	.088	.105	.082	.061	.061	.047	.036	.019	.015	.012	
3.0	.173	.120	.077	.148	.103	.067	.102	.072	.047	.059	.042	.028	.019	.014	.009	
4.0	.167	.107	.061	.143	.092	.053	.098	.064	.037	.057	.038	.022	.018	.012	.007	
5.0	.160	.096	.050	.138	.083	.043	.095	.058	.030	.055	.034	.018	.018	.011	.006	
6.0	.153	.088	.042	.132	.077	.036	.091	.054	.026	.053	.032	.015	.017	.010	.005	
7.0	.147	.082	.036	.126	.071	.032	.087	.050	.022	.051	.029	.013	.016	.010	.004	
8.0	.140	.076	.032	.121	.066	.028	.083	.046	.020	.049	.027	.012	.016	.009	.004	
9.0	.134	.071	.029	.115	.062	.025	.080	.043	.018	.047	.026	.011	.015	.008	.004	
10.0	.128	.067	.026	.110	.058	.023	.076	.041	.016	.045	.024	.010	.014	.008	.003	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
 Humidity:65.0%
 Test Distance:8.000m [K=0.7125]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz Lamp Flux:2702.8x1 lm										
Name: Lumatree Floor Wash					Type: LED					
MFR.:										
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	27.4	29.1	27.7	29.3	29.5	27.5	29.1	27.8	29.3	29.6
3H	27.9	29.4	28.2	29.6	29.9	28.2	29.7	28.5	30.0	30.2
4H	27.8	29.3	28.1	29.5	29.8	28.2	29.6	28.5	29.9	30.2
6H	27.7	29.1	28.1	29.4	29.7	28.1	29.4	28.4	29.7	30.0
8H	27.7	29.0	28.0	29.3	29.6	28.0	29.3	28.4	29.6	30.0
12H	27.6	28.9	28.0	29.2	29.5	28.0	29.2	28.4	29.6	29.9
4H 2H	27.9	29.4	28.2	29.6	29.9	28.0	29.4	28.3	29.7	30.0
3H	28.4	29.6	28.7	29.9	30.3	28.7	29.9	29.0	30.2	30.6
4H	28.4	29.5	28.8	29.8	30.2	28.7	29.8	29.1	30.2	30.5
6H	28.3	29.3	28.7	29.7	30.1	28.6	29.6	29.1	30.0	30.4
8H	28.3	29.2	28.7	29.6	30.0	28.6	29.5	29.0	29.9	30.3
12H	28.2	29.1	28.7	29.5	29.9	28.6	29.4	29.0	29.8	30.2
8H 4H	28.3	29.2	28.7	29.6	30.0	28.6	29.5	29.0	29.9	30.3
6H	28.3	29.0	28.7	29.4	29.9	28.6	29.3	29.0	29.8	30.2
8H	28.2	28.9	28.7	29.4	29.8	28.6	29.2	29.0	29.7	30.1
12H	28.2	28.8	28.7	29.3	29.7	28.6	29.1	29.0	29.6	30.1
12H 4H	28.3	29.1	28.7	29.5	29.9	28.6	29.4	29.0	29.8	30.2
6H	28.2	28.9	28.7	29.3	29.8	28.6	29.2	29.0	29.7	30.1
8H	28.2	28.8	28.7	29.2	29.7	28.5	29.1	29.0	29.6	30.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.2				
1.5H	+ 1.4 / - 1.3					+ 1.2 / - 0.8				
2.0H	+ 1.0 / - 2.9					+ 0.9 / - 2.9				

CIE Pub.117, 2703 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 3.5$)
Area: 0.035 m²

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz		
Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		

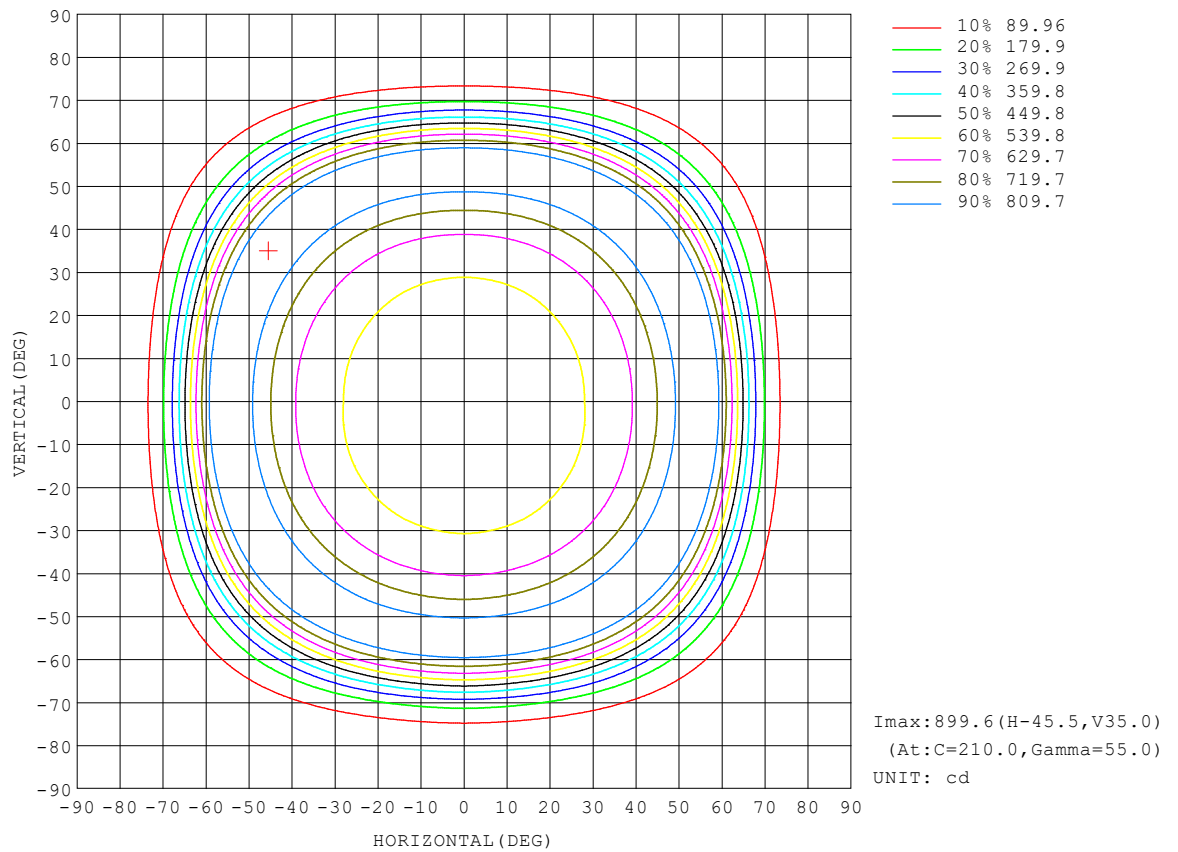
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	47	33	25	46	33	25	45	33	25	18
0.80	59	45	37	57	45	36	55	44	36	28
1.00	69	57	48	68	56	48	66	58	47	39
1.25	78	66	58	76	65	58	73	64	57	49
1.50	84	73	65	82	72	64	79	70	63	55
2.00	92	83	76	90	82	75	87	79	74	65
2.50	97	89	82	95	87	81	91	84	79	70
3.00	101	94	88	99	92	87	94	89	84	75
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	99	105	101	97	101	97	94	84
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7125]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		

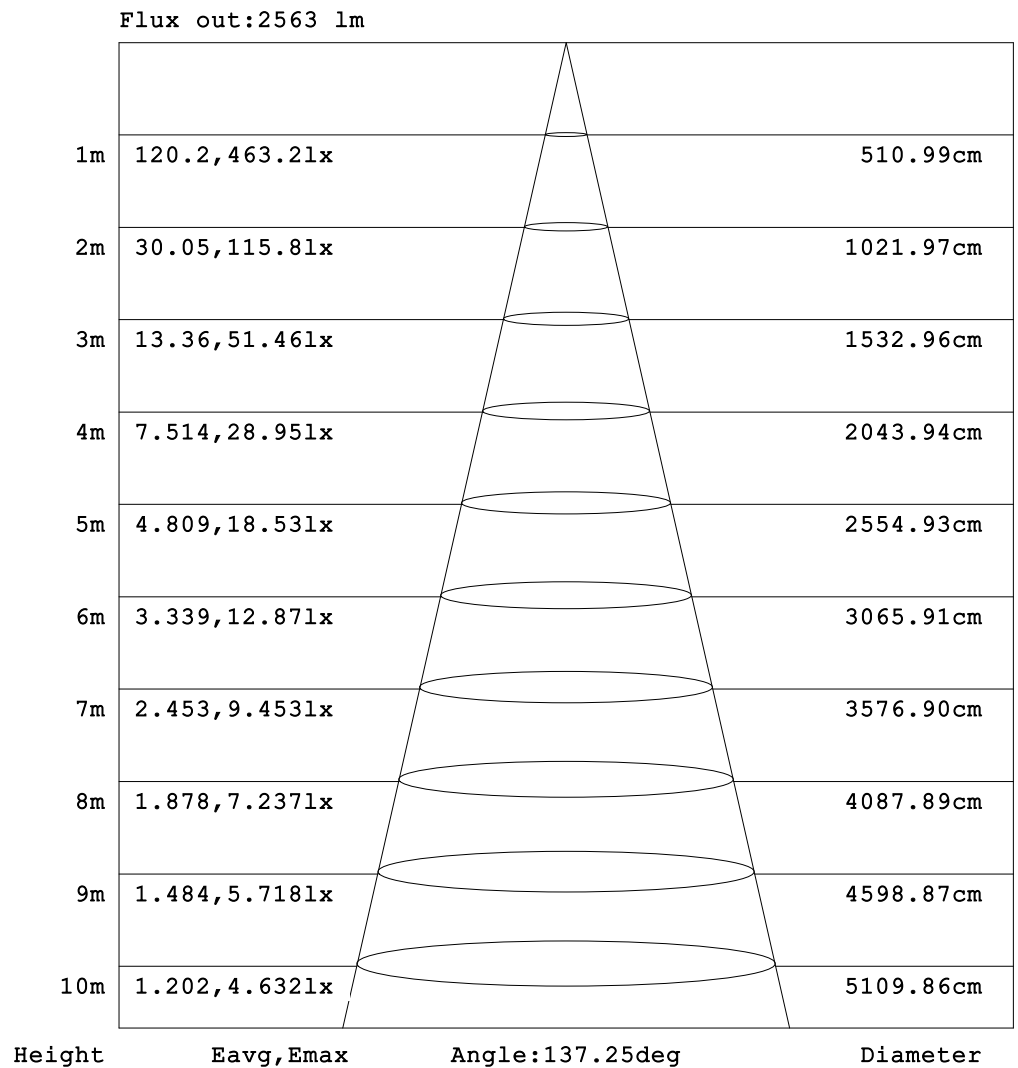


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

AAI Figure

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		



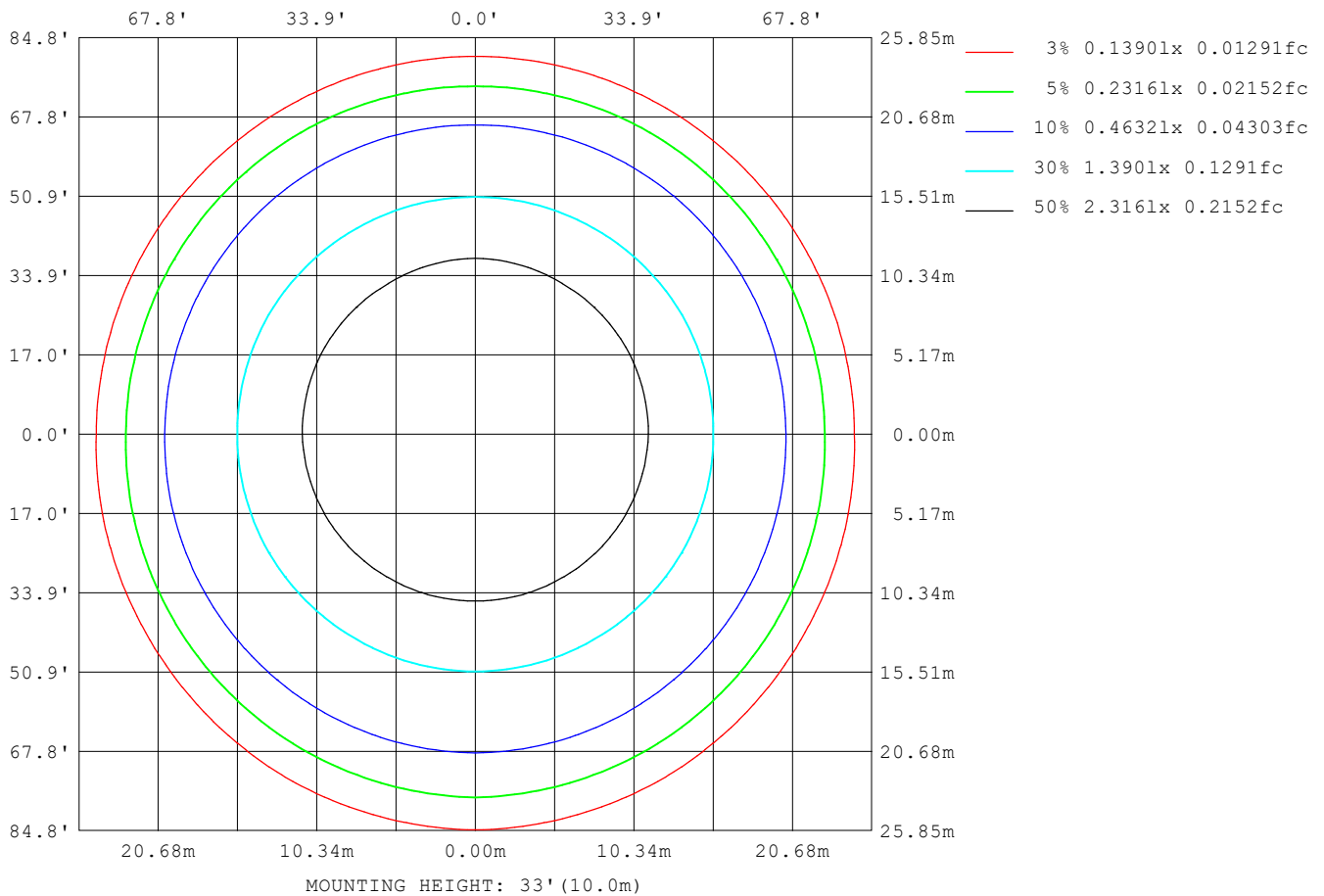
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-03

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

ISOLUX DIAGRAM

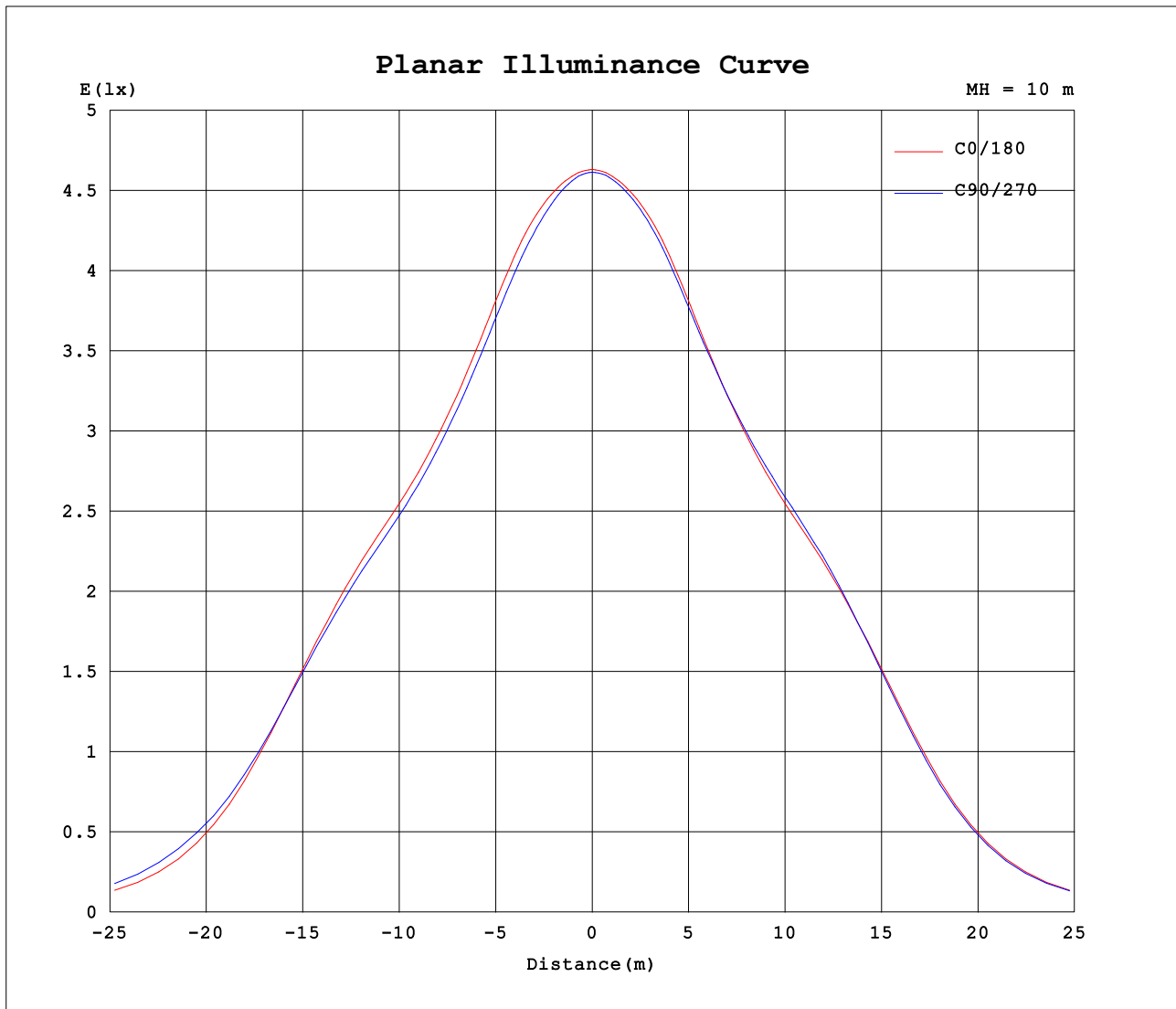
Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz		
Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-03

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2026-06-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7125]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.8375A P:20.100W PF:1.000 Freq:0Hz		
Lamp Flux:2702.8x1 lm		
Name: Lumatree Floor Wash	Type: LED	
MFR.:		

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	463	462	461	461	461	462	463	462	461	461	461	462						
5	465	464	463	463	463	464	465	464	464	464	464	464						
10	473	471	469	468	469	471	473	472	471	470	471	472						
15	487	483	479	478	479	483	487	486	483	483	483	486						
20	505	499	494	492	494	499	505	503	500	499	500	503						
25	525	518	513	511	513	518	525	523	521	520	521	523						
30	551	543	537	535	537	543	551	549	547	547	547	549						
35	587	578	573	571	573	578	587	586	585	587	585	586						
40	640	632	626	623	626	632	640	641	642	646	642	641						
45	721	712	703	700	703	712	721	723	725	732	725	723						
50	827	816	805	802	805	816	827	831	830	839	830	831						
55	895	888	878	878	878	888	895	900	890	891	890	900						
60	775	788	789	795	789	788	775	775	767	756	767	775						
65	442	472	504	526	504	472	442	433	434	427	434	433						
70	175	193	223	236	223	193	175	168	172	167	172	168						
75	67.7	73.6	79.4	86.6	79.4	73.6	67.7	66.6	69.1	65.6	69.1	66.6						
80	27.1	27.2	30.1	32.2	30.1	27.2	27.1	27.6	27.1	27.0	27.1	27.6						
85	9.01	8.34	8.92	10.1	8.92	8.34	9.01	9.42	9.87	10.0	9.87	9.42						
90	3.42	2.49	2.58	2.64	2.58	2.49	3.42	4.54	4.45	4.38	4.45	4.54						
95	2.68	1.80	1.88	1.90	1.88	1.80	2.68	3.69	3.72	3.71	3.72	3.69						
100	2.47	1.62	1.65	1.66	1.65	1.62	2.47	3.40	3.41	3.40	3.41	3.40						
105	2.44	1.62	1.61	1.60	1.61	1.62	2.44	3.35	3.34	3.34	3.34	3.35						
110	2.49	1.67	1.66	1.65	1.66	1.67	2.49	3.40	3.38	3.38	3.38	3.40						
115	2.56	1.74	1.73	1.73	1.73	1.74	2.56	3.49	3.46	3.47	3.46	3.49						
120	2.64	1.80	1.79	1.79	1.79	1.80	2.64	3.59	3.57	3.58	3.57	3.59						
125	2.71	1.84	1.84	1.83	1.84	1.84	2.71	3.69	3.68	3.68	3.68	3.69						
130	2.77	1.87	1.86	1.86	1.86	1.87	2.77	3.80	3.78	3.77	3.78	3.80						
135	2.81	1.89	1.89	1.89	1.89	1.89	2.81	3.90	3.87	3.86	3.87	3.90						
140	2.86	1.94	1.95	1.96	1.95	1.94	2.86	3.95	3.94	3.94	3.94	3.95						
145	2.94	2.06	2.08	2.08	2.08	2.06	2.94	3.99	3.99	3.99	3.99	3.99						
150	3.05	2.24	2.25	2.25	2.25	2.24	3.05	4.02	4.02	4.03	4.02	4.02						
155	3.17	2.45	2.45	2.45	2.45	2.45	3.17	4.05	4.06	4.06	4.06	4.05						
160	3.32	2.68	2.69	2.69	2.69	2.68	3.32	4.10	4.10	4.11	4.10	4.10						
165	3.50	2.99	3.03	3.05	3.03	2.99	3.50	4.17	4.18	4.19	4.18	4.17						
170	3.76	3.45	3.50	3.51	3.50	3.45	3.76	4.24	4.27	4.28	4.27	4.24						
175	3.98	3.90	3.91	3.91	3.91	3.90	3.98	4.24	4.25	4.26	4.25	4.24						
180	4.07	4.14	4.14	4.14	4.14	4.14	4.07	4.14	4.14	4.14	4.14	4.14						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-03

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks: