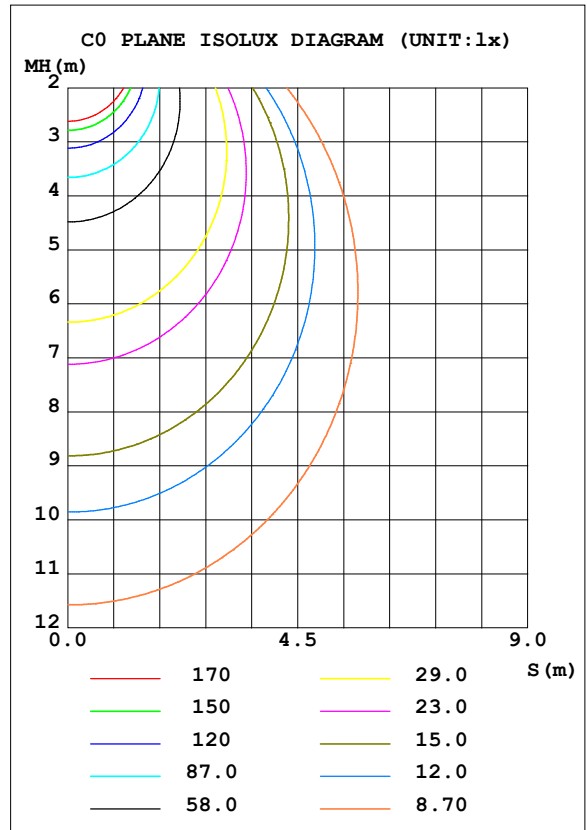
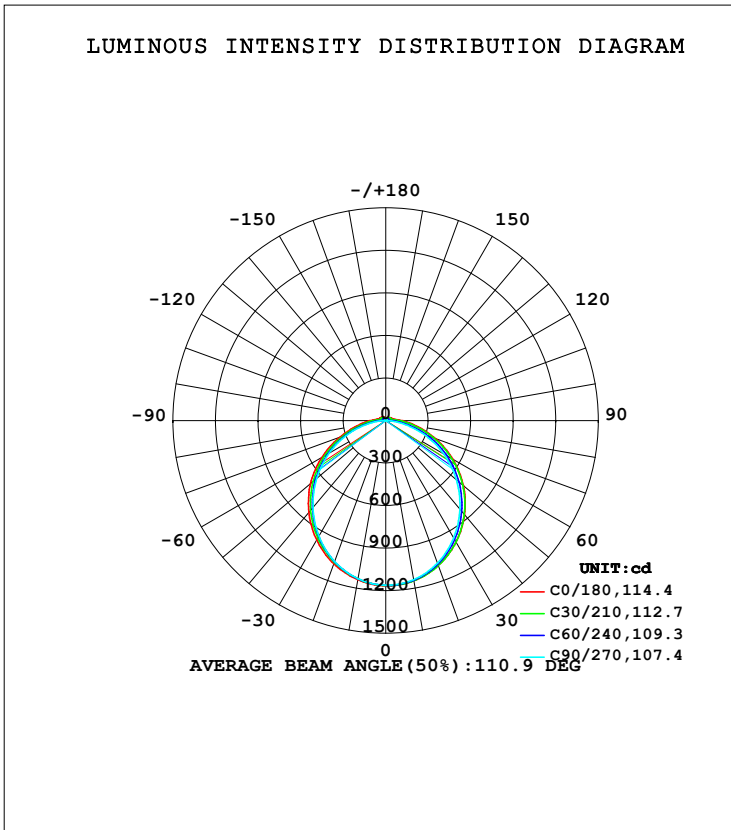


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 143.05 lm/W			
MODEL		I _{max} (cd)	1165	S/MH (C0/180)	1.24
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.21
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	3504.8	η UP, DN (C0-180)	2.3, 47.8
NOMINAL FLUX (lm)	3504.77	CIE CLASS	DIRECT	η UP, DN (C180-360)	2.5, 47.5
LAMPS INSIDE	1	η up (%)	4.7	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	95.3	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2024-03-10

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=0.7063]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

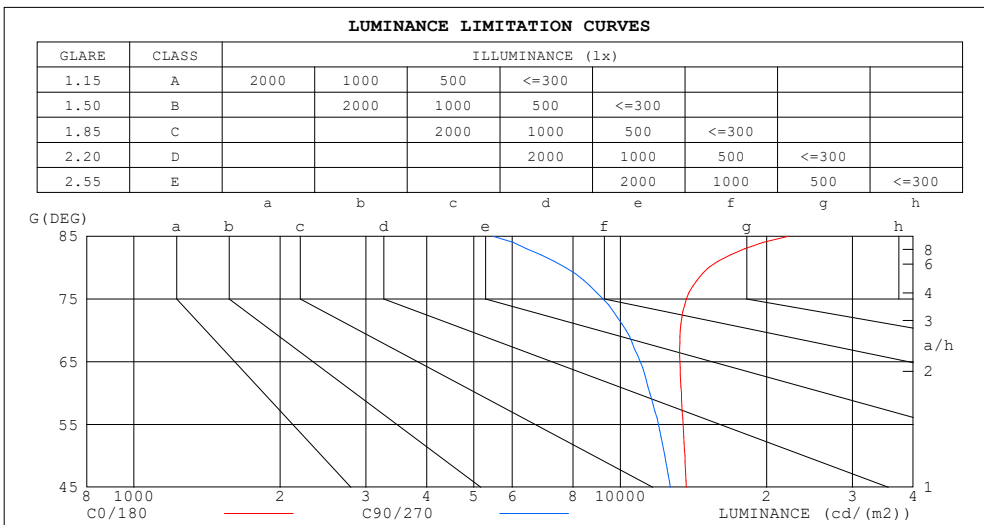
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1147	1145	1139	1133	1139	1133	1132	1140	0- 10	109.8	109.8	3.13,3.13
20	1087	1082	1069	1062	1074	1061	1057	1076	10- 20	313.0	422.8	12.1,12.1
30	991.6	980.9	957.4	953.1	973.5	951.8	942.8	973.1	20- 30	471.0	893.8	25.5,25.5
40	865.4	848.1	814.9	815.4	844.1	814.8	799.4	840.4	30- 40	563.4	1457	41.6,41.6
50	715.8	692.4	650.8	655.9	693.7	658.6	637.0	687.6	40- 50	581.6	2039	58.2,58.2
60	547.7	519.6	471.7	480.3	519.6	484.9	463.3	517.1	50- 60	526.0	2565	73.2,73.2
70	372.6	339.8	288.5	301.0	345.5	308.9	283.7	341.9	60- 70	407.4	2972	84.8,84.8
80	216.1	173.6	110.0	143.5	198.5	153.2	110.9	178.6	70- 80	252.1	3224	92,92
90	114.0	70.29	2.892	57.05	108.3	64.25	6.127	73.33	80- 90	115.0	3339	95.3,95.3
100	60.05	33.45	2.836	30.57	61.80	34.84	5.814	33.34	90-100	49.13	3389	96.7,96.7
110	42.64	27.12	3.793	26.80	46.62	30.14	6.390	28.54	100-110	30.73	3419	97.6,97.6
120	37.78	25.02	4.769	25.15	42.21	28.28	7.266	26.61	110-120	25.94	3445	98.3,98.3
130	32.74	22.14	5.390	22.85	37.09	25.71	7.641	23.26	120-130	21.52	3467	98.9,98.9
140	26.96	18.12	5.926	19.99	31.19	22.53	7.813	19.48	130-140	16.29	3483	99.4,99.4
150	21.22	14.00	6.338	16.94	25.09	19.09	7.773	14.49	140-150	11.08	3494	99.7,99.7
160	15.78	9.899	6.660	13.85	19.02	15.44	8.227	10.93	150-160	6.567	3501	99.9,99.9
170	10.98	7.706	8.049	10.99	13.28	11.93	9.005	8.844	160-170	3.207	3504	100,100
180	8.896	8.467	9.038	8.992	8.693	8.488	9.122	9.026	170-180	0.9025	3505	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	22176	5476
80	15178	7725
75	13668	9226
70	13284	10286
65	13273	11000
60	13358	11505
55	13463	11980
50	13580	12348
45	13666	12678

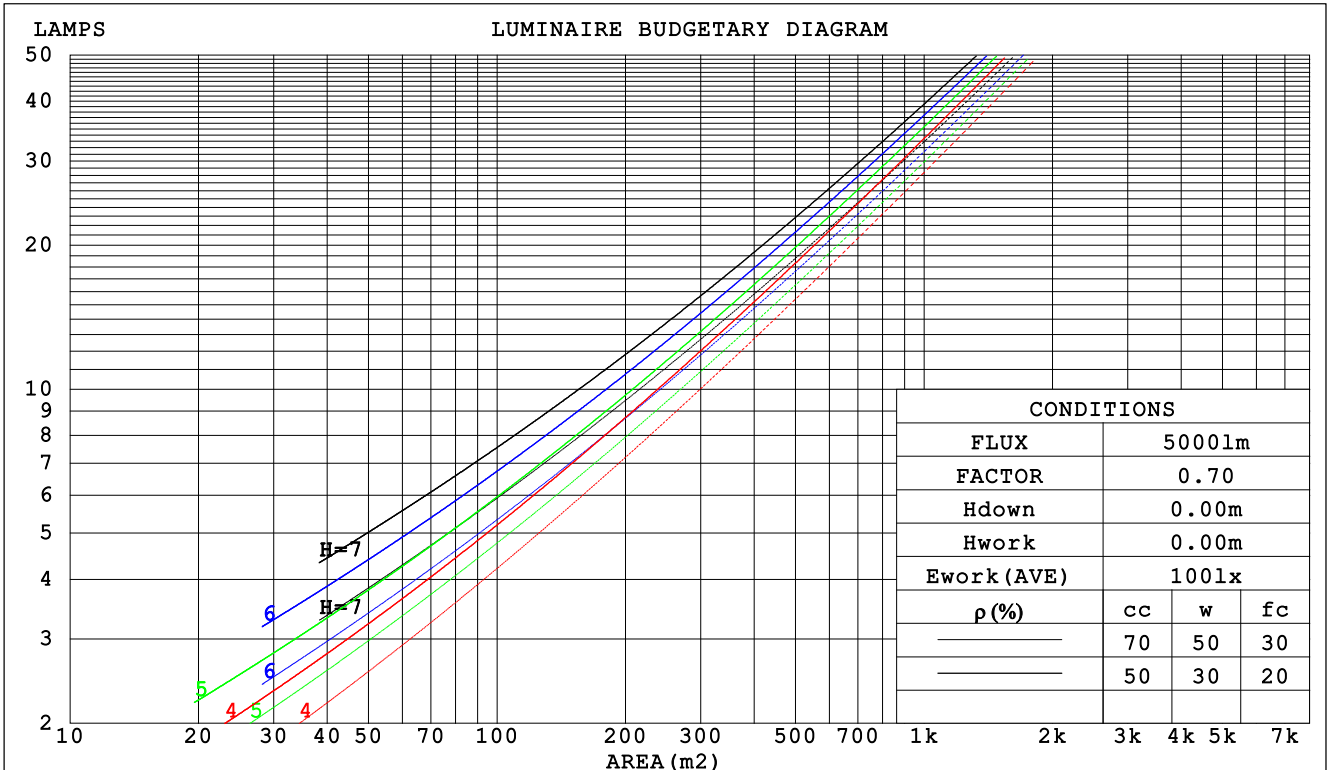
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		

ρcc	80%			70%			50%			30%			10%			0
	ρw	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.08	1.08	1.08	1.03	1.03	1.03	.98	.98	.98	.95
1.0	1.02	.97	.93	.99	.95	.91	.94	.91	.88	.89	.87	.84	.85	.83	.81	.78
2.0	.89	.82	.76	.86	.80	.74	.82	.77	.72	.78	.73	.70	.74	.71	.67	.65
3.0	.78	.69	.63	.76	.68	.62	.72	.66	.60	.69	.63	.58	.65	.61	.57	.54
4.0	.69	.60	.53	.67	.59	.52	.64	.57	.51	.61	.55	.50	.58	.53	.49	.46
5.0	.61	.52	.46	.60	.51	.45	.57	.50	.44	.55	.48	.43	.52	.47	.42	.40
6.0	.55	.46	.40	.54	.46	.39	.52	.44	.39	.50	.43	.38	.48	.42	.37	.35
7.0	.50	.41	.35	.49	.41	.35	.47	.40	.34	.45	.39	.34	.43	.38	.33	.31
8.0	.46	.37	.31	.45	.37	.31	.43	.36	.31	.41	.35	.30	.40	.34	.30	.28
9.0	.42	.34	.28	.41	.33	.28	.40	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.39	.31	.25	.38	.30	.25	.37	.30	.25	.35	.29	.25	.34	.28	.24	.22



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

WEC AND CCEC

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.325	.185	.058	.316	.180	.057	.300	.172	.055	.285	.165	.053	.272	.158	.051	
2.0	.298	.164	.050	.291	.160	.049	.277	.154	.048	.264	.148	.046	.251	.142	.045	
3.0	.273	.146	.044	.267	.143	.043	.254	.138	.042	.242	.133	.041	.231	.128	.040	
4.0	.251	.130	.038	.245	.128	.038	.234	.124	.037	.223	.120	.036	.213	.116	.035	
5.0	.231	.118	.034	.226	.116	.034	.216	.112	.033	.206	.109	.032	.197	.105	.032	
6.0	.214	.107	.031	.209	.106	.030	.200	.102	.030	.191	.099	.029	.183	.097	.029	
7.0	.199	.098	.028	.194	.097	.028	.186	.094	.027	.178	.091	.027	.171	.089	.026	
8.0	.185	.091	.025	.182	.089	.025	.174	.087	.025	.167	.085	.024	.160	.082	.024	
9.0	.174	.084	.023	.170	.083	.023	.163	.081	.023	.157	.079	.023	.151	.077	.022	
10.0	.163	.078	.022	.160	.077	.022	.154	.075	.021	.148	.073	.021	.142	.072	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.226	.226	.226	.194	.194	.194	.132	.132	.132	.076	.076	.076	.024	.024	.024	
1.0	.218	.192	.169	.186	.165	.146	.127	.114	.101	.073	.066	.059	.023	.021	.019	
2.0	.210	.168	.134	.180	.145	.116	.123	.100	.081	.071	.058	.047	.023	.019	.015	
3.0	.202	.151	.110	.173	.130	.096	.119	.090	.067	.069	.053	.040	.022	.017	.013	
4.0	.194	.138	.095	.167	.119	.082	.115	.083	.058	.066	.049	.034	.021	.016	.011	
5.0	.187	.128	.084	.160	.110	.073	.110	.077	.052	.064	.045	.031	.021	.015	.010	
6.0	.179	.119	.076	.154	.103	.066	.106	.072	.047	.062	.043	.028	.020	.014	.009	
7.0	.173	.112	.070	.148	.098	.061	.103	.068	.043	.060	.040	.026	.019	.013	.009	
8.0	.166	.107	.066	.143	.093	.058	.099	.065	.041	.058	.038	.024	.019	.013	.008	
9.0	.160	.102	.063	.138	.088	.055	.096	.062	.039	.056	.037	.023	.018	.012	.008	
10.0	.154	.098	.060	.133	.085	.052	.092	.060	.037	.054	.035	.022	.017	.012	.007	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		

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	21.8	23.3	22.1	23.5	23.8	21.2	22.7	21.5	23.0	23.2
3H	23.5	24.9	23.9	25.2	25.5	22.6	24.0	23.0	24.3	24.6
4H	24.3	25.6	24.7	26.0	26.3	23.2	24.5	23.6	24.8	25.2
6H	25.1	26.3	25.5	26.7	27.0	23.5	24.8	23.9	25.1	25.5
8H	25.5	26.6	25.9	27.0	27.4	23.6	24.8	24.0	25.2	25.6
12H	25.9	27.0	26.3	27.4	27.8	23.7	24.8	24.1	25.2	25.6
4H 2H	22.4	23.6	22.7	24.0	24.3	21.9	23.2	22.3	23.5	23.9
3H	24.3	25.4	24.7	25.8	26.2	23.5	24.7	24.0	25.0	25.4
4H	25.3	26.3	25.7	26.7	27.1	24.2	25.2	24.7	25.6	26.1
6H	26.2	27.1	26.7	27.5	28.0	24.7	25.6	25.2	26.1	26.5
8H	26.7	27.5	27.2	28.0	28.5	24.8	25.7	25.3	26.2	26.6
12H	27.2	28.0	27.7	28.4	29.0	24.9	25.7	25.4	26.2	26.7
8H 4H	25.5	26.4	26.0	26.8	27.3	24.6	25.5	25.1	25.9	26.4
6H	26.7	27.4	27.2	27.9	28.4	25.3	26.0	25.8	26.5	27.0
8H	27.3	27.9	27.8	28.4	29.0	25.5	26.2	26.1	26.7	27.2
12H	28.0	28.6	28.6	29.1	29.7	25.7	26.3	26.3	26.8	27.4
12H 4H	25.5	26.3	26.0	26.8	27.3	24.7	25.5	25.2	25.9	26.4
6H	26.7	27.4	27.3	27.9	28.4	25.4	26.1	26.0	26.6	27.1
8H	27.4	28.0	28.0	28.5	29.1	25.8	26.3	26.3	26.8	27.4
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 3505 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.4)
 Area: 0.082 m2

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		

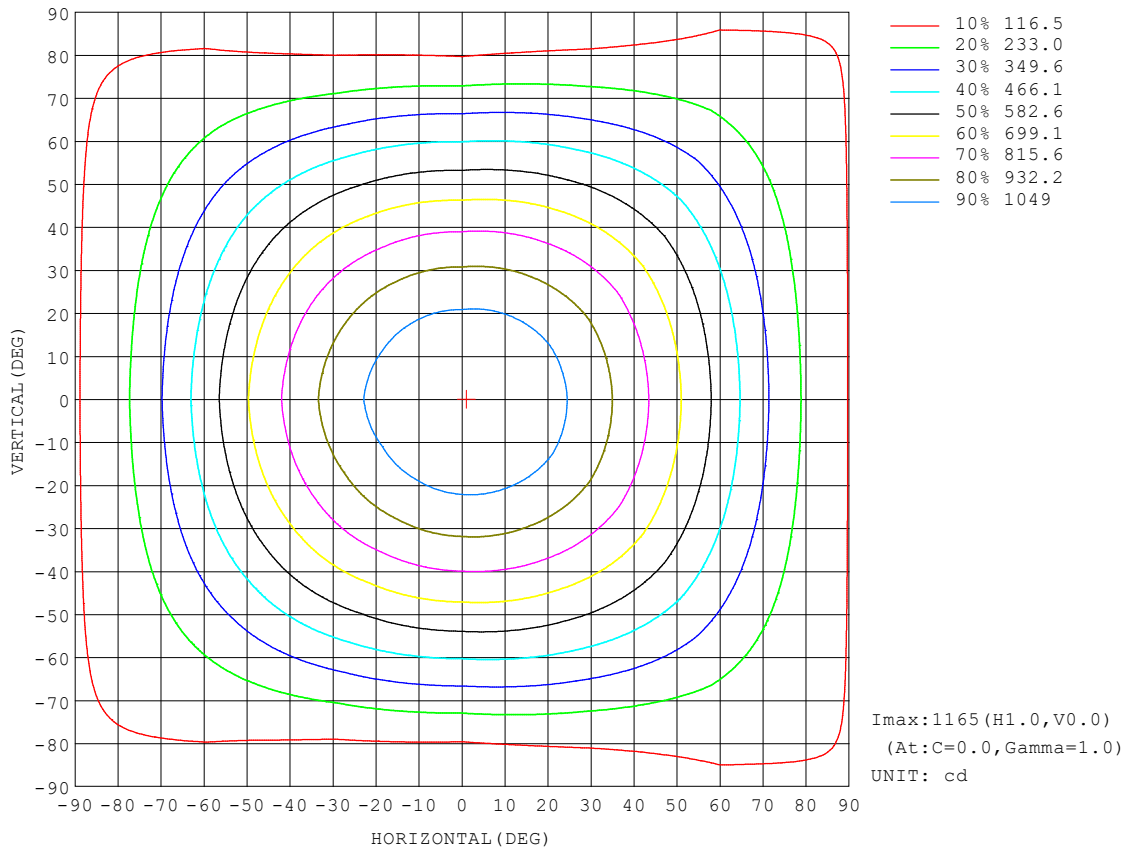
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	53	43	37	30
0.80	65	54	46	64	53	46	62	52	45	38
1.00	74	62	55	72	62	54	70	63	54	46
1.25	81	70	62	79	69	62	76	67	61	53
1.50	86	75	68	84	74	67	80	72	66	58
2.00	93	83	77	90	82	76	86	79	74	65
2.50	97	88	82	94	87	81	90	83	78	69
3.00	100	93	87	97	91	85	93	87	83	73
4.00	104	98	93	101	96	91	96	92	88	78
5.00	107	101	97	104	99	95	98	95	91	81
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:2024-03-10

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=0.7063]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		

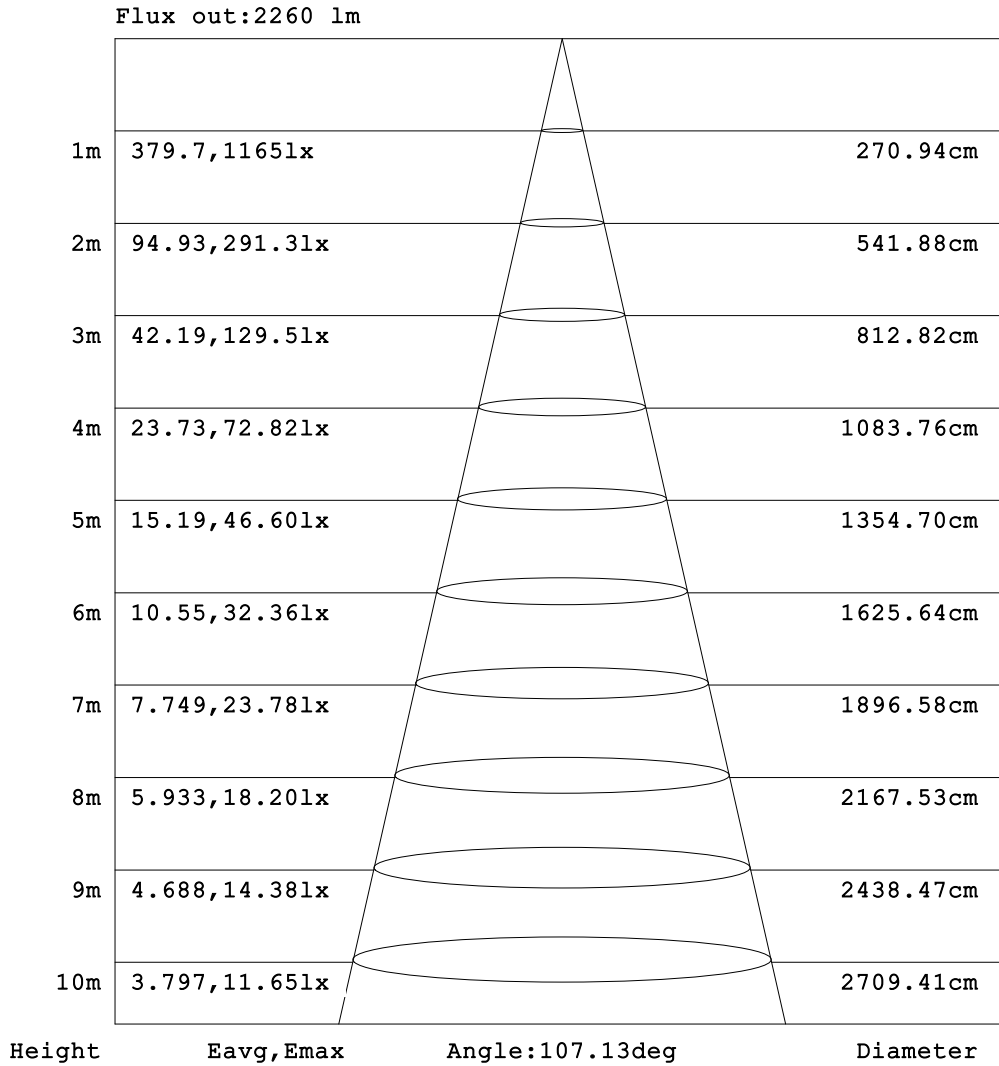


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

AAI Figure

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		



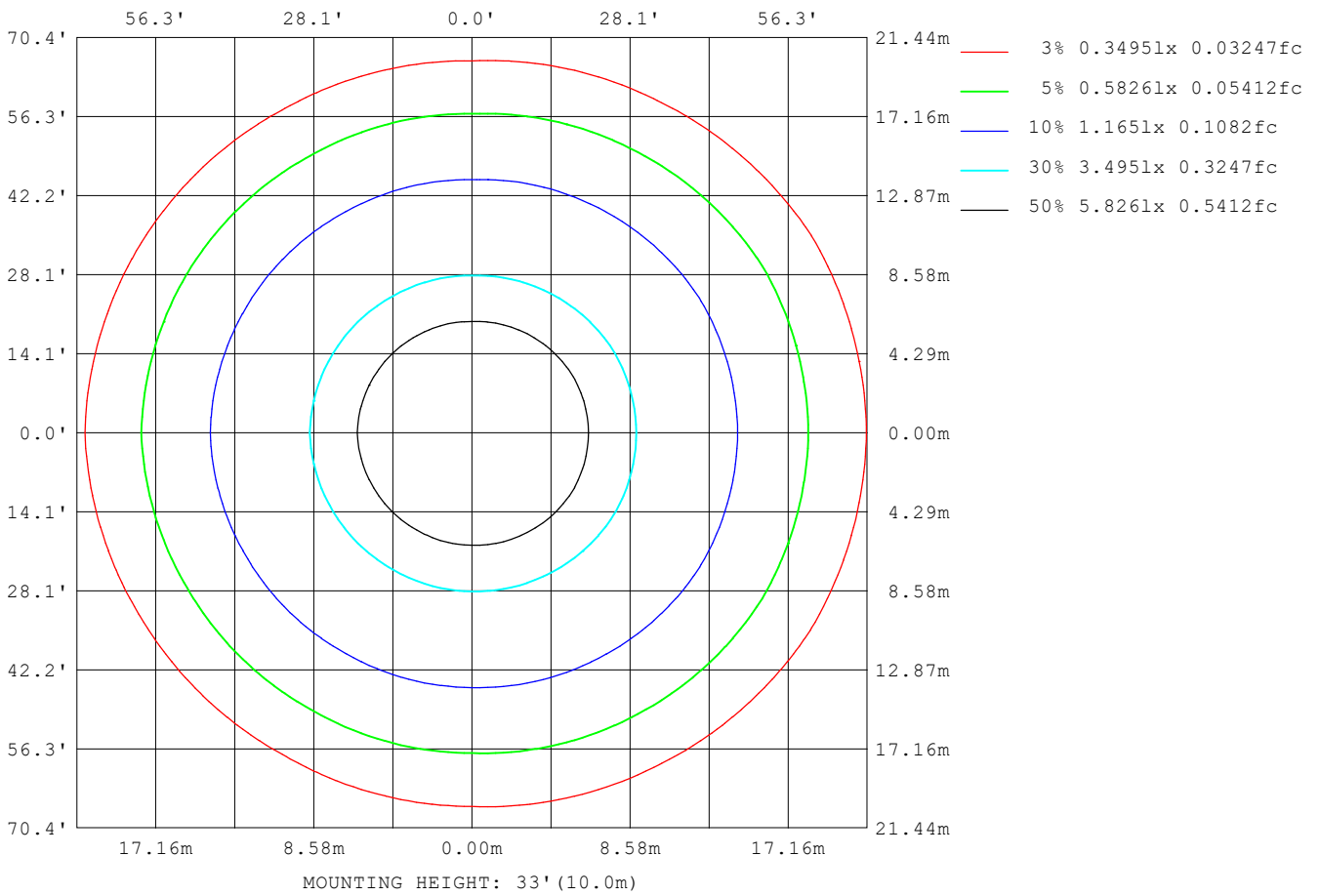
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

ISOLUX DIAGRAM

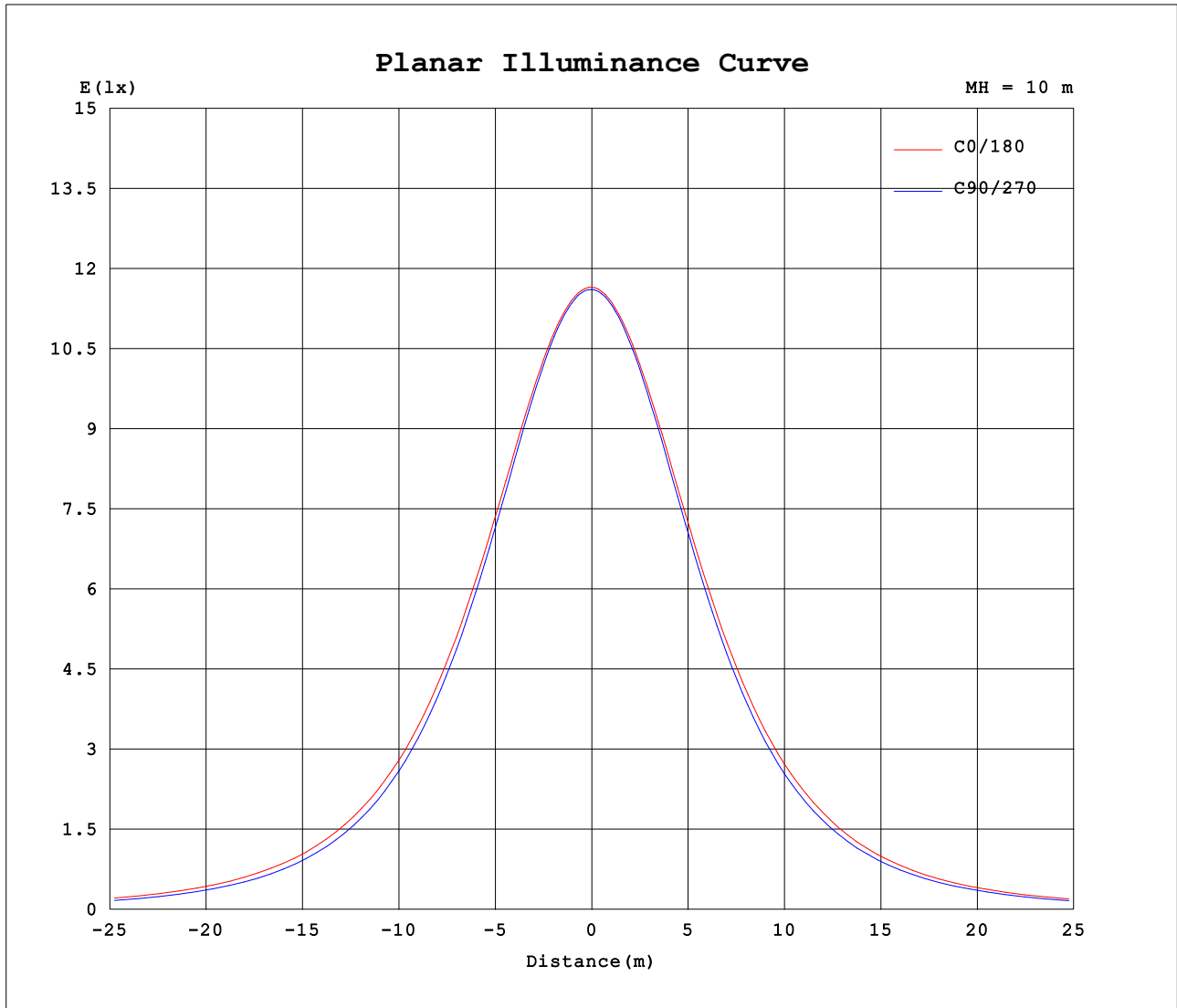
Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2024-03-10

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=0.7063]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.40V I:0.1430A P:24.500W PF:0.9720 Freq:50.00Hz		
Lamp Flux:3504.77x1 lm		
Name: NS55-24W	Type: LED	
MFR.: Lumega		

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1165	1163	1162	1161	1161	1160	1165	1163	1162	1161	1161	1160							
5	1161	1161	1159	1156	1154	1151	1158	1154	1154	1153	1156	1157							
10	1147	1147	1143	1139	1135	1132	1139	1133	1133	1132	1138	1142							
15	1122	1122	1116	1109	1104	1101	1111	1103	1101	1100	1109	1117							
20	1087	1087	1078	1069	1062	1061	1074	1063	1059	1057	1069	1082							
25	1044	1043	1029	1017	1011	1013	1028	1014	1006	1004	1020	1037							
30	992	991	971	957	950	956	974	958	945	943	962	985							
35	932	930	906	889	883	893	912	894	878	873	896	924							
40	865	862	834	815	809	822	844	825	805	799	824	857							
45	792	789	756	735	729	746	770	749	727	720	747	784							
50	716	710	675	651	647	664	694	669	648	637	669	706							
55	633	627	589	563	560	579	608	585	561	551	583	624							
60	548	539	501	472	471	489	520	498	472	463	495	539							
65	460	450	410	381	380	401	432	411	383	375	407	453							
70	373	361	318	288	288	314	345	324	294	284	319	365							
75	290	276	229	196	200	232	266	243	209	194	232	281							
80	216	201	146	110	122	165	198	173	133	111	152	205							
85	158	140	83.6	39.1	66.8	115	147	123	75.9	42.4	87.8	144							
90	114	96.0	44.6	2.89	35.0	79.1	108	86.1	42.4	6.13	47.3	99.3							
95	81.1	64.9	25.3	2.62	21.4	55.4	80.5	61.3	26.8	5.65	26.1	67.9							
100	60.0	47.1	19.8	2.84	18.6	42.5	61.8	47.0	22.7	5.81	17.3	49.3							
105	48.2	38.5	19.1	3.23	18.5	37.0	51.2	40.6	22.2	6.03	20.7	33.6							
110	42.6	35.4	18.9	3.79	18.5	35.1	46.6	38.3	22.0	6.39	20.4	36.6							
115	40.0	33.7	18.5	4.24	18.2	33.9	44.3	37.0	21.6	6.86	19.9	35.3							
120	37.8	32.1	17.9	4.77	17.8	32.5	42.2	35.4	21.1	7.27	19.4	33.8							
125	35.4	30.4	17.2	5.11	17.4	30.8	39.9	33.6	20.5	7.48	18.2	32.1							
130	32.7	28.3	16.0	5.39	16.8	28.9	37.1	31.6	19.8	7.64	16.5	30.1							
135	29.9	26.0	14.3	5.67	16.1	26.8	34.3	29.4	19.0	7.75	14.9	27.8							
140	27.0	23.7	12.6	5.93	15.4	24.6	31.2	27.0	18.0	7.81	13.5	25.4							
145	24.1	21.0	11.0	6.14	14.5	22.4	28.1	24.8	17.0	7.82	12.3	21.6							
150	21.2	18.3	9.72	6.34	13.6	20.3	25.1	22.3	15.8	7.77	10.8	18.1							
155	18.4	15.0	8.60	6.51	12.7	18.1	21.9	19.9	14.6	7.68	9.91	15.2							
160	15.8	12.1	7.71	6.66	11.7	16.0	19.0	17.5	13.4	8.23	9.04	12.8							
165	13.3	9.73	7.24	7.36	10.9	13.8	16.1	15.0	12.3	8.76	8.62	10.7							
170	11.0	8.06	7.35	8.05	10.1	11.9	13.3	12.7	11.2	9.00	8.73	8.96							
175	9.18	7.46	8.03	8.61	9.45	10.3	10.5	10.3	10.0	9.09	8.83	8.46							
180	8.90	8.07	8.86	9.04	9.11	8.88	8.69	8.11	8.87	9.12	9.17	8.88							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7063]
 Remarks: