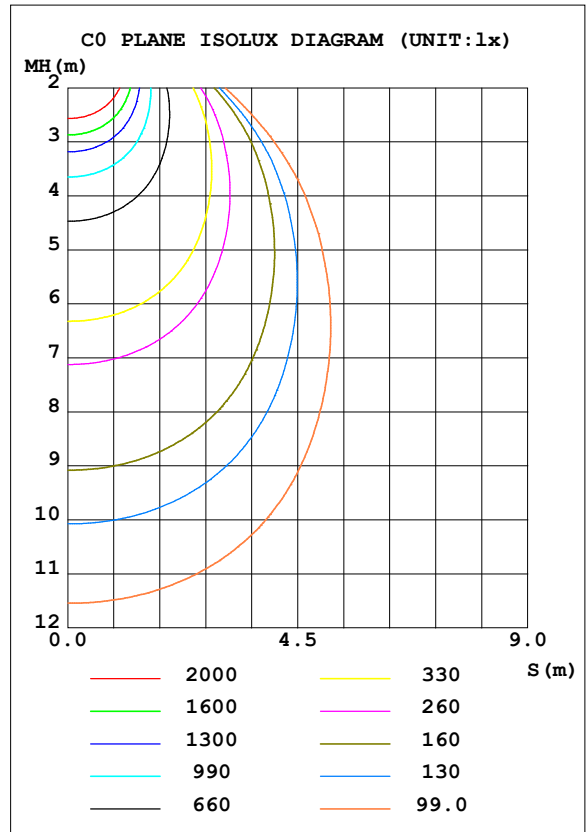
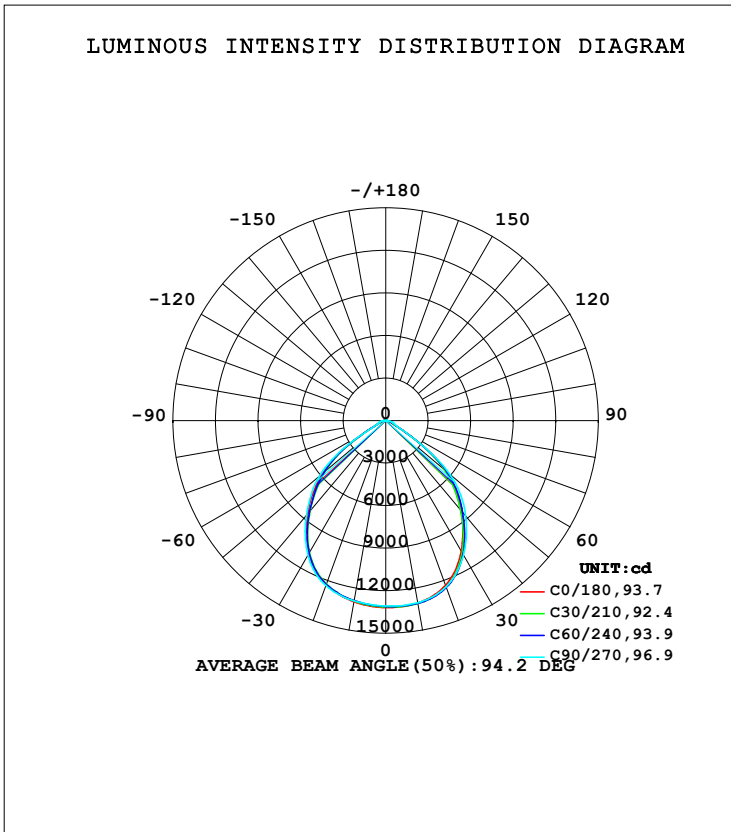


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	Type: LED	
MFR.: Lumega		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 132.91 lm/W			
MODEL		I _{max} (cd)	13191	S/MH (C0/180)	1.22
NOMINAL POWER (W)	200	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	26503	η UP, DN (C0-180)	0.3, 49.0
NOMINAL FLUX (lm)	26503.1	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.6, 50.1
LAMPS INSIDE	1	η up (%)	0.8	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	99.2	CIBSE SHR MAX	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=0.7125]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

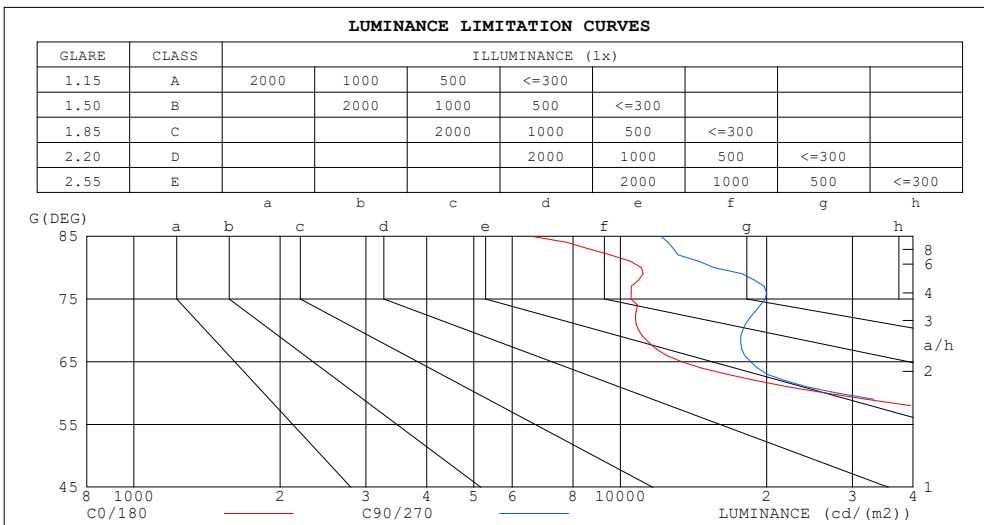
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1306	1309	1303	1292	1297	1290	1291	1291	0- 10	1245	1245	4.7,4.7
20	1236	1250	1247	1227	1230	1228	1239	1235	10- 20	3597	4842	18.3,18.3
30	1065	1085	1096	1070	1082	1079	1097	1082	20- 30	5381	10223	38.6,38.6
40	825.7	833.1	877.2	833.1	856.2	832.4	870.3	831.0	30- 40	6029	16252	61.3,61.3
50	548.4	551.9	593.1	555.0	586.9	562.5	614.7	565.2	40- 50	5460	21711	81.9,81.9
60	128.7	139.2	135.9	141.5	175.5	178.7	176.0	172.3	50- 60	3268	24979	94.2,94.2
70	36.19	47.77	59.21	47.93	42.63	49.52	55.20	47.67	60- 70	787.3	25766	97.2,97.2
80	18.63	21.67	26.29	22.97	24.32	25.99	34.42	23.43	70- 80	384.7	26151	98.7,98.7
90	1.495	1.502	1.494	1.974	4.547	4.702	4.724	4.361	80- 90	130.5	26281	99.2,99.2
100	1.718	1.705	1.668	2.163	4.844	4.864	4.677	4.531	90-100	34.43	26316	99.3,99.3
110	1.958	1.925	1.911	2.388	5.150	5.092	4.860	4.744	100-110	36.02	26352	99.4,99.4
120	2.301	2.191	2.201	2.698	5.274	5.183	4.947	4.847	110-120	35.86	26388	99.6,99.6
130	2.623	2.485	2.492	2.953	5.183	5.095	4.897	4.775	120-130	33.89	26422	99.7,99.7
140	2.769	2.666	2.666	3.059	4.868	4.821	4.664	4.505	130-140	29.44	26451	99.8,99.8
150	2.831	2.759	2.771	3.074	4.432	4.421	4.325	4.179	140-150	23.15	26474	99.9,99.9
160	2.881	2.830	2.842	3.039	4.004	4.006	3.965	3.829	150-160	16.30	26491	100,100
170	2.879	2.857	2.918	2.996	3.615	3.584	3.574	3.460	160-170	9.466	26500	100,100
180	3.068	3.092	3.152	3.085	3.079	3.072	3.139	3.060	170-180	3.022	26503	100,100
DEG	LUMINOUS INTENSITY:×10cd									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=0.7125]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	Type: LED	
MFR.: Lumega		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6566	12123
80	11061	15609
75	10523	19891
70	10908	17849
65	13381	18552
60	26544	28014
55	62161	64258
50	87951	95123
45	100895	109494

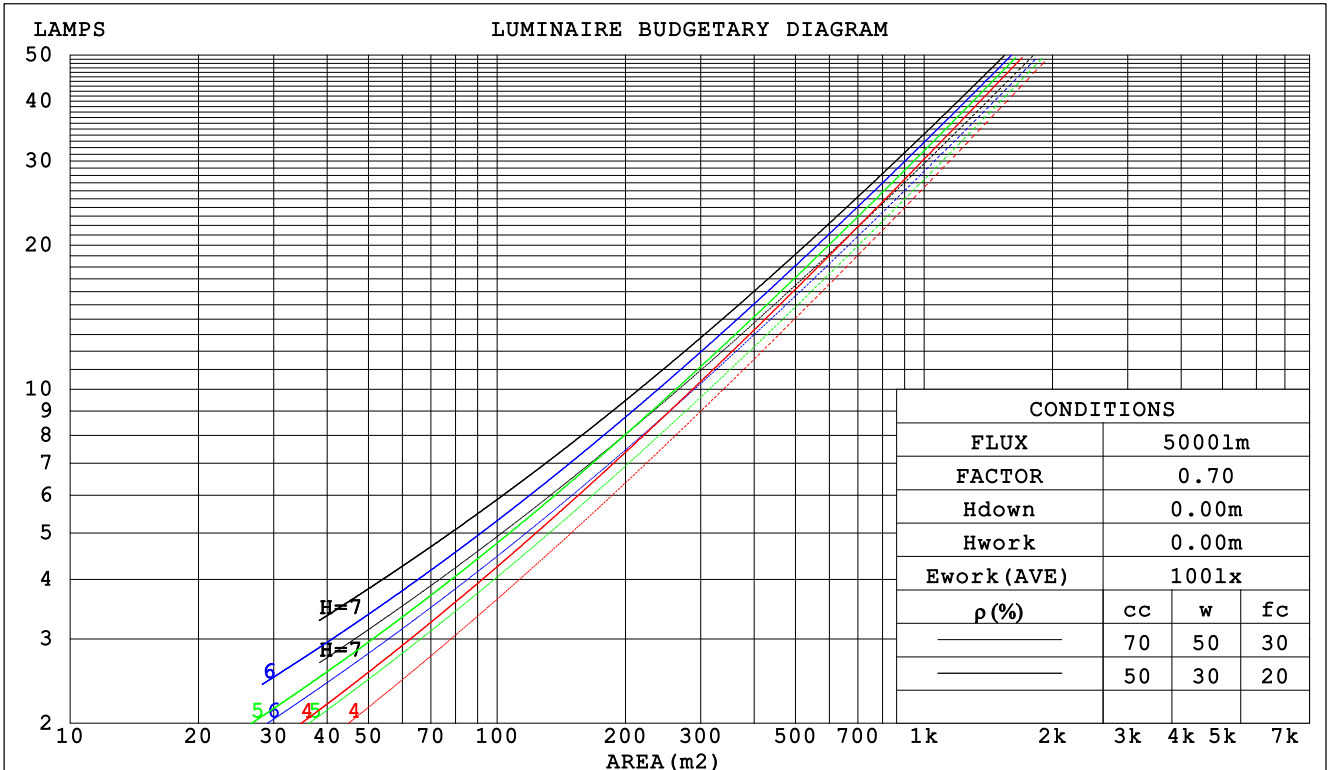
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7125]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	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						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	1.08	1.04	1.01	1.05	1.02	.90	1.01	.99	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.97	.91	.87	.95	.90	.86	.91	.87	.84	.88	.85	.82	.85	.82	.80	.78
3.0	.87	.80	.75	.86	.79	.74	.83	.77	.73	.80	.76	.72	.77	.74	.71	.69
4.0	.79	.71	.66	.77	.71	.65	.75	.69	.64	.73	.68	.63	.71	.66	.63	.61
5.0	.71	.64	.58	.70	.63	.58	.68	.62	.57	.66	.61	.56	.65	.60	.56	.54
6.0	.65	.57	.52	.64	.57	.51	.62	.56	.51	.61	.55	.51	.59	.54	.50	.48
7.0	.60	.52	.46	.59	.51	.46	.57	.51	.46	.56	.50	.45	.54	.49	.45	.43
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.41	.51	.46	.41	.50	.45	.41	.39
9.0	.51	.43	.38	.50	.43	.38	.49	.42	.38	.48	.42	.37	.47	.41	.37	.36
10.0	.47	.40	.35	.46	.39	.35	.45	.39	.34	.44	.38	.34	.43	.38	.34	.33



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=0.7125]
 Remarks:

WEC AND CCEC

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	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	.236	.134	.043	.229	.131	.042	.216	.124	.040	.203	.117	.038	.192	.111	.036	
2.0	.229	.126	.039	.223	.123	.038	.212	.118	.037	.201	.113	.035	.191	.108	.034	
3.0	.219	.116	.035	.213	.114	.034	.203	.110	.033	.194	.106	.033	.185	.103	.032	
4.0	.207	.108	.032	.203	.106	.031	.194	.103	.031	.185	.099	.030	.178	.096	.029	
5.0	.196	.100	.029	.192	.098	.029	.184	.096	.028	.176	.093	.028	.169	.091	.027	
6.0	.185	.093	.027	.181	.092	.026	.174	.089	.026	.168	.087	.026	.161	.085	.025	
7.0	.175	.087	.025	.172	.086	.024	.165	.084	.024	.159	.082	.024	.154	.080	.023	
8.0	.166	.081	.023	.163	.080	.023	.157	.078	.022	.152	.077	.022	.147	.075	.022	
9.0	.157	.076	.021	.154	.075	.021	.149	.074	.021	.144	.072	.021	.140	.071	.021	
10.0	.149	.071	.020	.147	.071	.020	.142	.070	.020	.138	.068	.019	.133	.067	.019	

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																
1.0	.182	.163	.147	.155	.140	.126	.106	.096	.087	.061	.056	.051	.020	.018	.016	
2.0	.170	.139	.112	.146	.119	.097	.100	.083	.068	.058	.048	.040	.019	.016	.013	
3.0	.161	.120	.088	.138	.104	.076	.095	.072	.054	.055	.042	.032	.018	.014	.010	
4.0	.153	.107	.071	.131	.092	.062	.090	.064	.043	.052	.038	.026	.017	.012	.008	
5.0	.146	.096	.059	.125	.083	.051	.086	.058	.036	.050	.034	.021	.016	.011	.007	
6.0	.139	.087	.050	.120	.075	.043	.083	.053	.031	.048	.031	.018	.015	.010	.006	
7.0	.133	.080	.043	.114	.069	.037	.079	.049	.027	.046	.029	.016	.015	.009	.005	
8.0	.127	.074	.038	.110	.064	.033	.076	.045	.023	.044	.027	.014	.014	.009	.005	
9.0	.122	.069	.034	.105	.060	.029	.073	.042	.021	.042	.025	.012	.014	.008	.004	
10.0	.117	.065	.031	.101	.057	.027	.070	.040	.019	.041	.024	.011	.013	.008	.004	

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=0.7125]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	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	26.2	27.5	26.5	27.7	27.9	26.5	27.8	26.8	28.0	28.2
3H	26.1	27.3	26.4	27.5	27.8	26.5	27.7	26.8	27.9	28.1
4H	26.1	27.2	26.4	27.4	27.7	26.5	27.6	26.8	27.9	28.1
6H	26.0	27.1	26.4	27.4	27.6	26.5	27.6	26.9	27.8	28.1
8H	26.0	27.0	26.4	27.3	27.6	26.5	27.5	26.9	27.8	28.1
12H	26.0	26.9	26.3	27.2	27.5	26.5	27.5	26.9	27.8	28.1
4H 2H	26.1	27.2	26.4	27.5	27.8	26.4	27.5	26.7	27.7	28.0
3H	26.1	27.0	26.4	27.3	27.7	26.4	27.4	26.8	27.7	28.0
4H	26.1	26.9	26.5	27.3	27.6	26.5	27.4	26.9	27.7	28.1
6H	26.1	26.8	26.5	27.2	27.6	26.6	27.4	27.0	27.7	28.1
8H	26.1	26.8	26.5	27.1	27.5	26.6	27.3	27.1	27.7	28.1
12H	26.1	26.7	26.5	27.1	27.5	26.6	27.3	27.1	27.7	28.1
8H 4H	26.0	26.7	26.4	27.1	27.5	26.5	27.2	26.9	27.5	27.9
6H	26.1	26.6	26.5	27.1	27.5	26.6	27.2	27.1	27.6	28.0
8H	26.1	26.6	26.5	27.0	27.5	26.6	27.1	27.1	27.6	28.0
12H	26.1	26.5	26.6	27.0	27.5	26.7	27.1	27.2	27.6	28.0
12H 4H	26.0	26.6	26.4	27.0	27.4	26.4	27.1	26.9	27.5	27.9
6H	26.0	26.5	26.5	27.0	27.4	26.6	27.1	27.1	27.5	28.0
8H	26.1	26.5	26.6	27.0	27.5	26.6	27.1	27.1	27.5	28.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.2 / - 1.8					+ 1.1 / - 1.6				
1.5H	+ 0.5 / - 0.9					+ 0.6 / - 1.0				
2.0H	+ 2.8 / - 5.4					+ 2.8 / - 4.6				

CIE Pub.117, 26503 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 11.4)
 Area: 0.097 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=0.7125]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	Type: LED	
MFR.: Lumega		

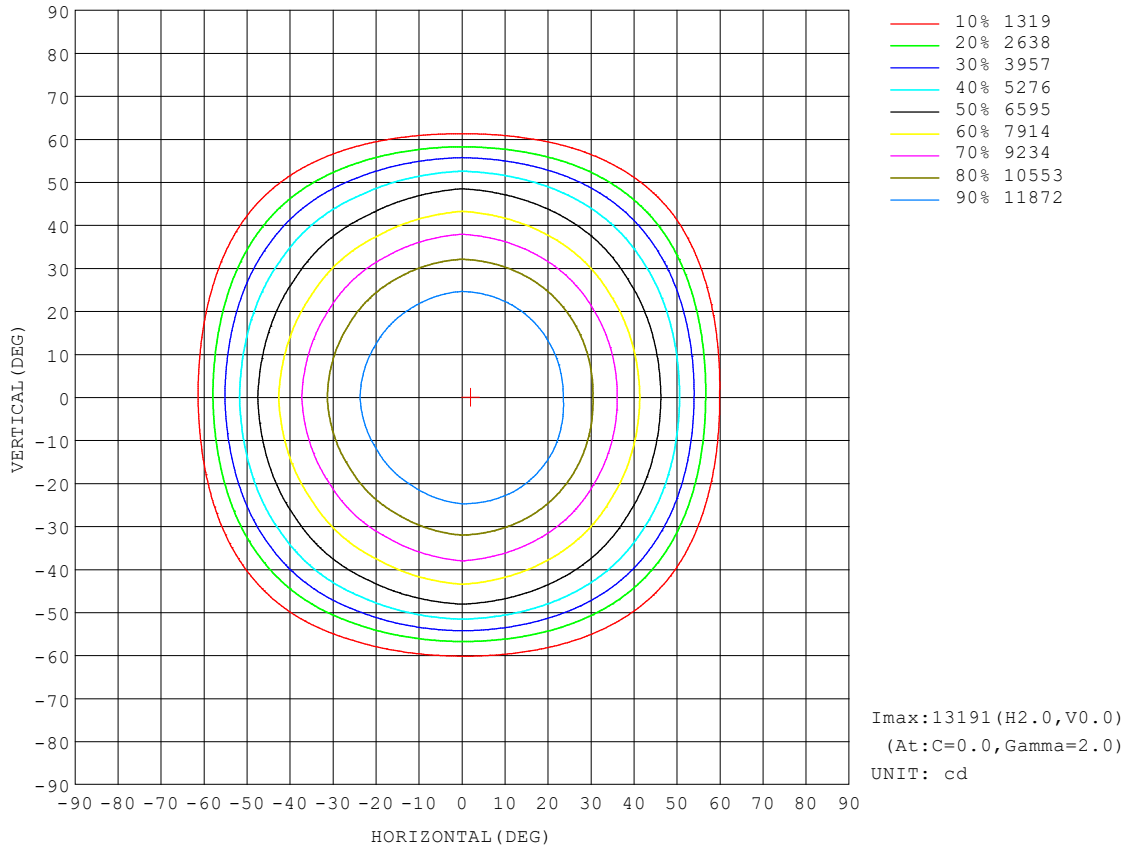
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	67	57	51	66	56	50	65	56	50	45
0.80	77	67	61	76	67	61	74	66	61	55
1.00	85	76	71	84	76	70	82	77	70	64
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	89	83	95	88	83	92	86	82	75
2.00	102	95	90	100	94	90	97	92	88	81
2.50	104	98	94	102	97	93	99	94	91	84
3.00	107	102	97	105	100	96	101	97	94	86
4.00	110	105	102	107	103	100	103	100	97	89
5.00	111	107	104	109	105	103	104	102	99	91
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=0.7125]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	Type: LED	
MFR.: Lumega		



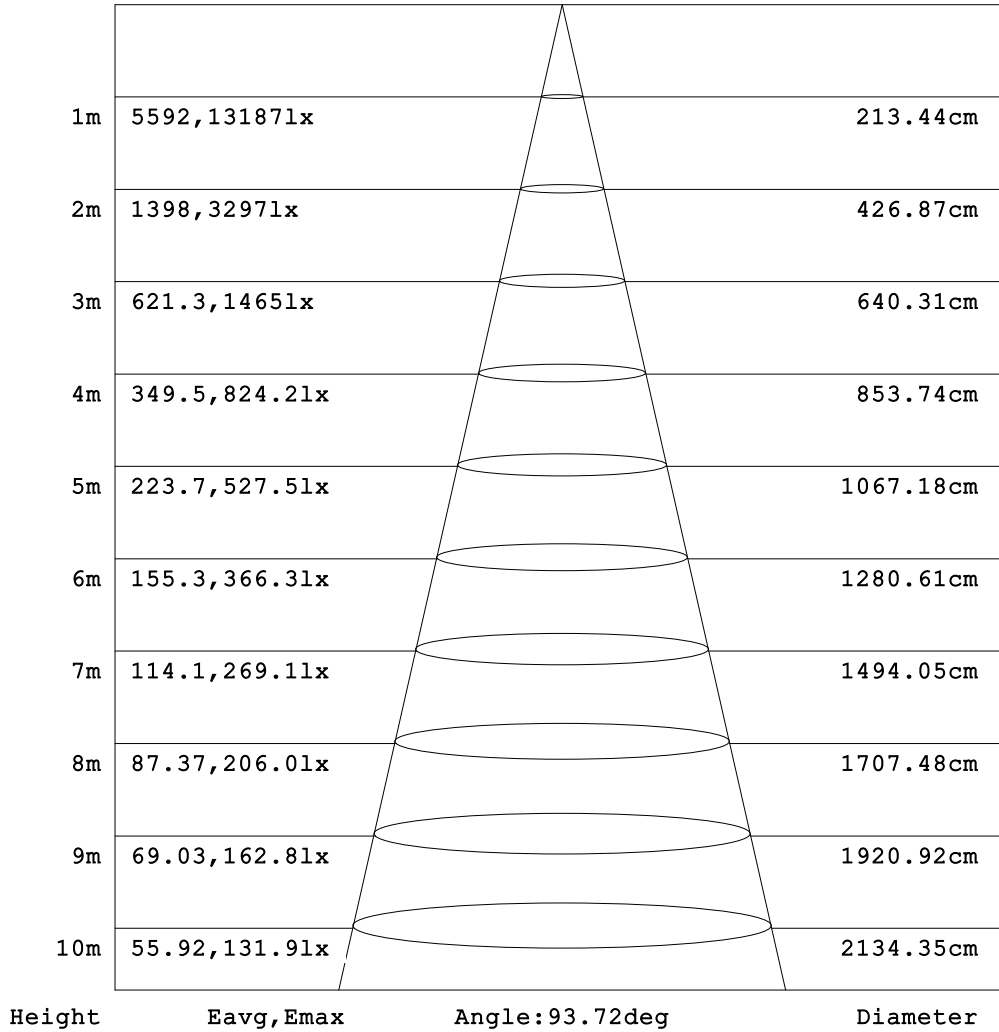
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-10

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=0.7125]
 Remarks:

AAI Figure

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	Type: LED	
MFR.: Lumega		

Flux out:20201 lm



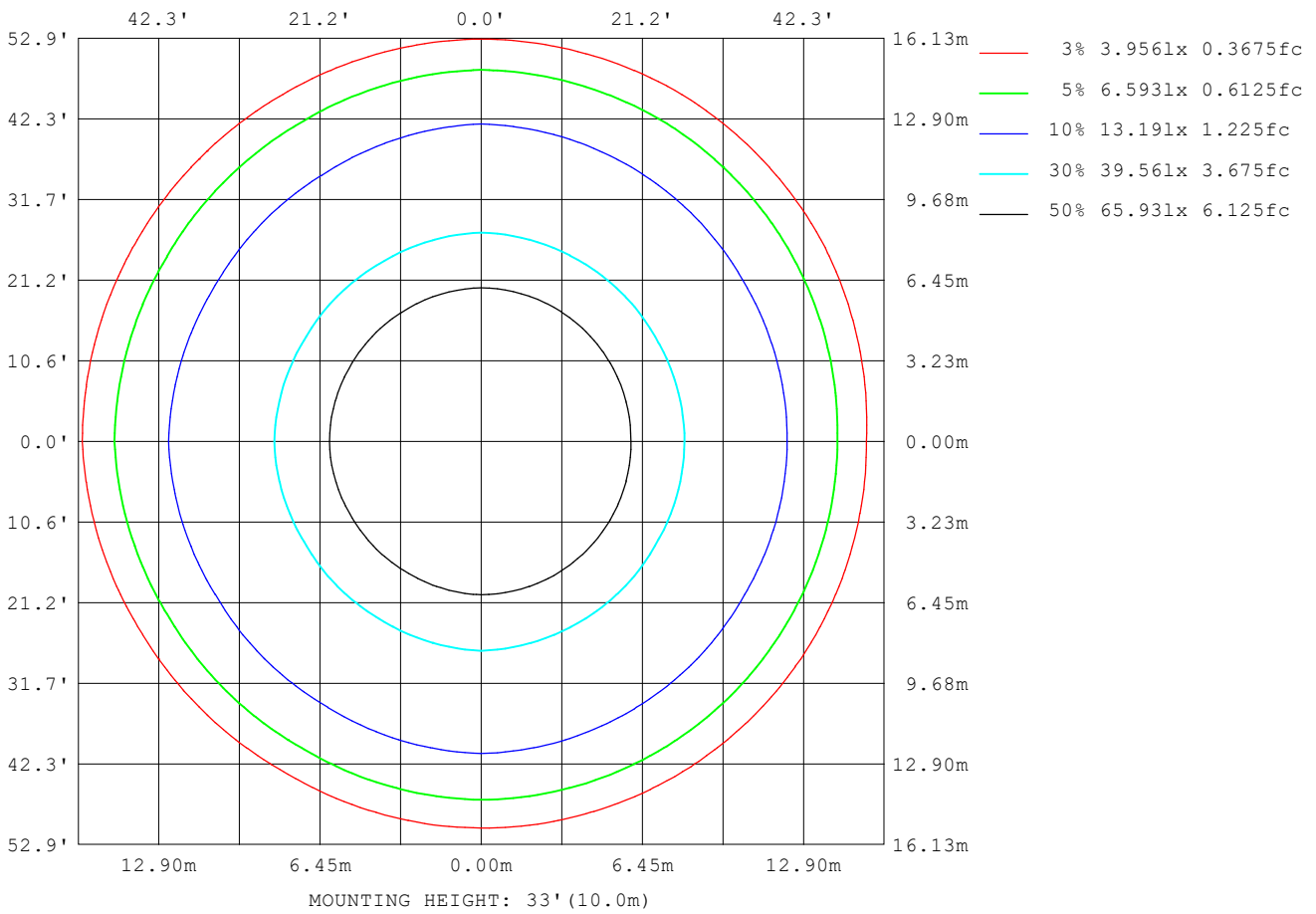
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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=0.7125]
 Remarks:

ISOLUX DIAGRAM

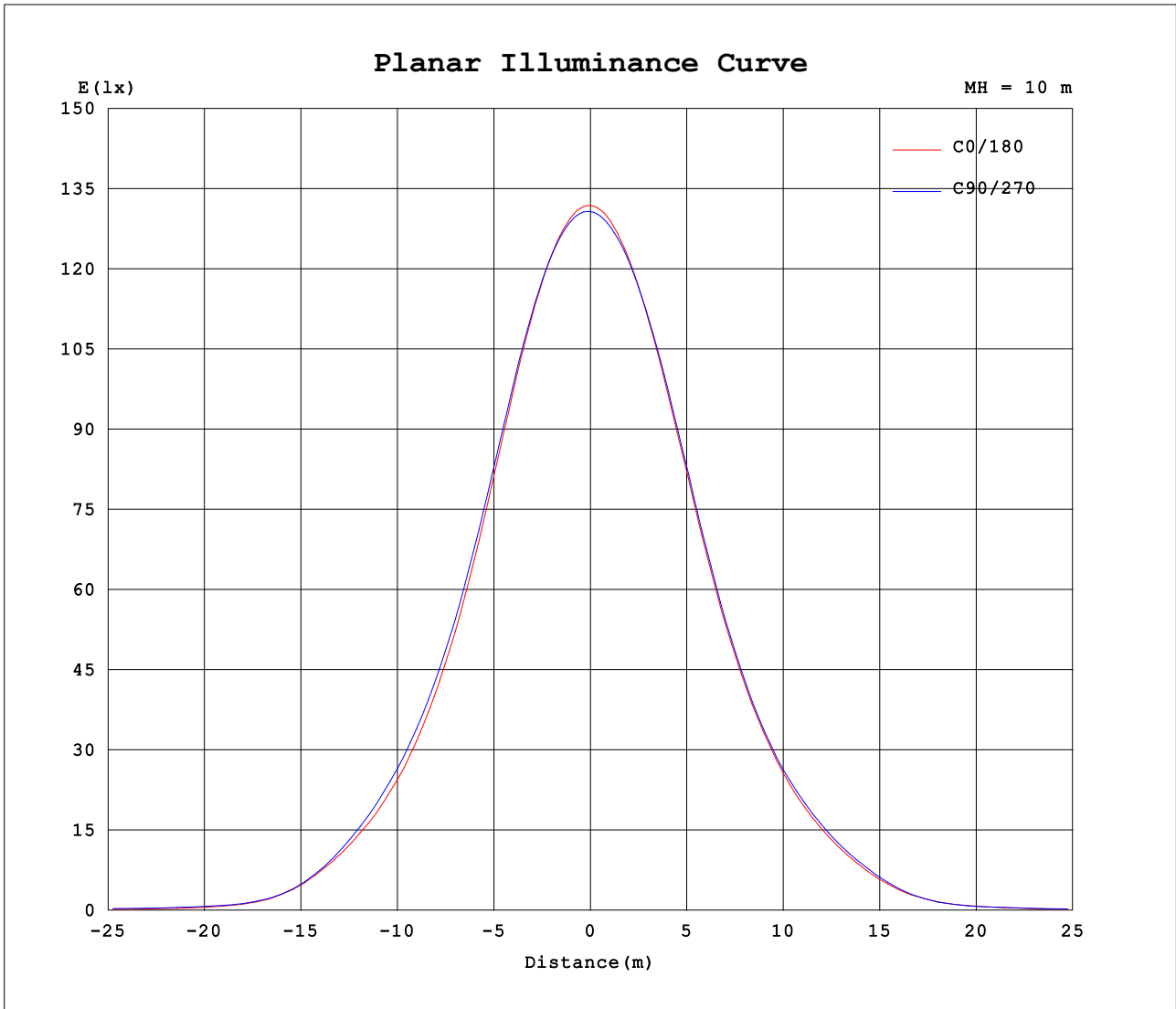
Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz Lamp Flux:26503.1x1 lm		
Name: NS65-200W	Type: LED	
MFR.: Lumega		



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=0.7125]
 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=0.7125]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.10V I:0.9220A P:199.40W PF:0.9820 Freq:50.00Hz		
Lamp Flux:26503.1x1 lm		
Name: NS65-200W	Type: LED	
MFR.: Lumega		

Table--1

UNIT: x10cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1319	1314	1311	1307	1303	1308	1319	1315	1311	1307	1303	1306							
5	1317	1316	1313	1309	1302	1304	1313	1308	1303	1301	1299	1303							
10	1306	1309	1309	1303	1293	1291	1297	1292	1289	1291	1289	1293							
15	1281	1289	1291	1285	1271	1266	1271	1266	1266	1272	1271	1273							
20	1236	1248	1252	1247	1230	1224	1230	1226	1229	1239	1236	1234							
25	1164	1178	1185	1184	1164	1159	1169	1164	1169	1182	1176	1169							
30	1065	1078	1091	1096	1073	1067	1082	1076	1081	1097	1089	1076							
35	950	954	973	991	959	953	975	960	966	990	972	955							
40	826	821	846	877	837	829	856	830	835	870	842	820							
45	692	687	716	751	710	700	728	695	703	746	713	686							
50	548	541	563	593	556	554	587	557	568	615	580	550							
55	346	343	349	358	340	357	402	388	397	429	408	376							
60	129	139	140	136	134	149	175	180	178	176	179	166							
65	54.9	63.9	71.6	76.1	69.9	66.6	69.1	72.7	74.7	74.3	73.7	67.8							
70	36.2	43.3	52.3	59.2	51.6	44.3	42.6	46.8	52.2	55.2	51.1	44.3							
75	26.4	30.1	40.1	49.9	39.6	31.8	32.3	34.3	40.8	47.3	38.6	30.0							
80	18.6	20.1	23.2	26.3	23.5	22.5	24.3	23.8	28.2	34.4	26.8	20.0							
85	5.55	7.96	9.49	10.2	10.3	11.1	12.6	13.8	14.7	15.0	14.3	11.3							
90	1.50	1.51	1.50	1.49	1.39	2.56	4.55	4.74	4.67	4.72	4.83	3.89							
95	1.60	1.58	1.55	1.55	1.49	2.67	4.63	4.79	4.61	4.54	4.79	3.98							
100	1.72	1.72	1.69	1.67	1.55	2.77	4.84	4.97	4.75	4.68	4.94	4.12							
105	1.83	1.84	1.82	1.80	1.64	2.88	5.02	5.12	4.87	4.79	5.06	4.25							
110	1.96	1.93	1.92	1.91	1.76	3.01	5.15	5.23	4.96	4.86	5.14	4.35							
115	2.10	2.06	2.03	2.04	1.92	3.15	5.23	5.29	5.01	4.91	5.19	4.43							
120	2.30	2.21	2.18	2.20	2.11	3.29	5.27	5.32	5.04	4.95	5.21	4.49							
125	2.47	2.36	2.33	2.36	2.28	3.40	5.26	5.30	5.03	4.95	5.18	4.50							
130	2.62	2.51	2.46	2.49	2.43	3.47	5.18	5.22	4.98	4.90	5.09	4.46							
135	2.72	2.62	2.57	2.59	2.55	3.50	5.06	5.09	4.88	4.81	4.96	4.37							
140	2.77	2.68	2.65	2.67	2.63	3.48	4.87	4.91	4.73	4.66	4.77	4.24							
145	2.80	2.73	2.70	2.72	2.70	3.44	4.66	4.70	4.55	4.50	4.58	4.10							
150	2.83	2.77	2.75	2.77	2.76	3.39	4.43	4.48	4.36	4.32	4.39	3.97							
155	2.87	2.81	2.79	2.81	2.80	3.33	4.21	4.26	4.17	4.14	4.19	3.82							
160	2.88	2.84	2.82	2.84	2.82	3.26	4.00	4.04	3.97	3.97	3.99	3.67							
165	2.89	2.84	2.84	2.86	2.83	3.19	3.81	3.83	3.77	3.78	3.78	3.52							
170	2.88	2.85	2.87	2.92	2.86	3.13	3.61	3.61	3.56	3.57	3.56	3.36							
175	2.91	2.92	2.97	3.03	2.97	3.08	3.31	3.29	3.28	3.31	3.26	3.13							
180	3.07	3.07	3.11	3.15	3.10	3.07	3.08	3.06	3.09	3.14	3.08	3.04							

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=0.7125]
 Remarks: