

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P831300

Luminaire Tested: S123DIP-S1165D805U927-4F0-1E-UDD-G

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831300
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-5)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIP-S1165D805U927-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

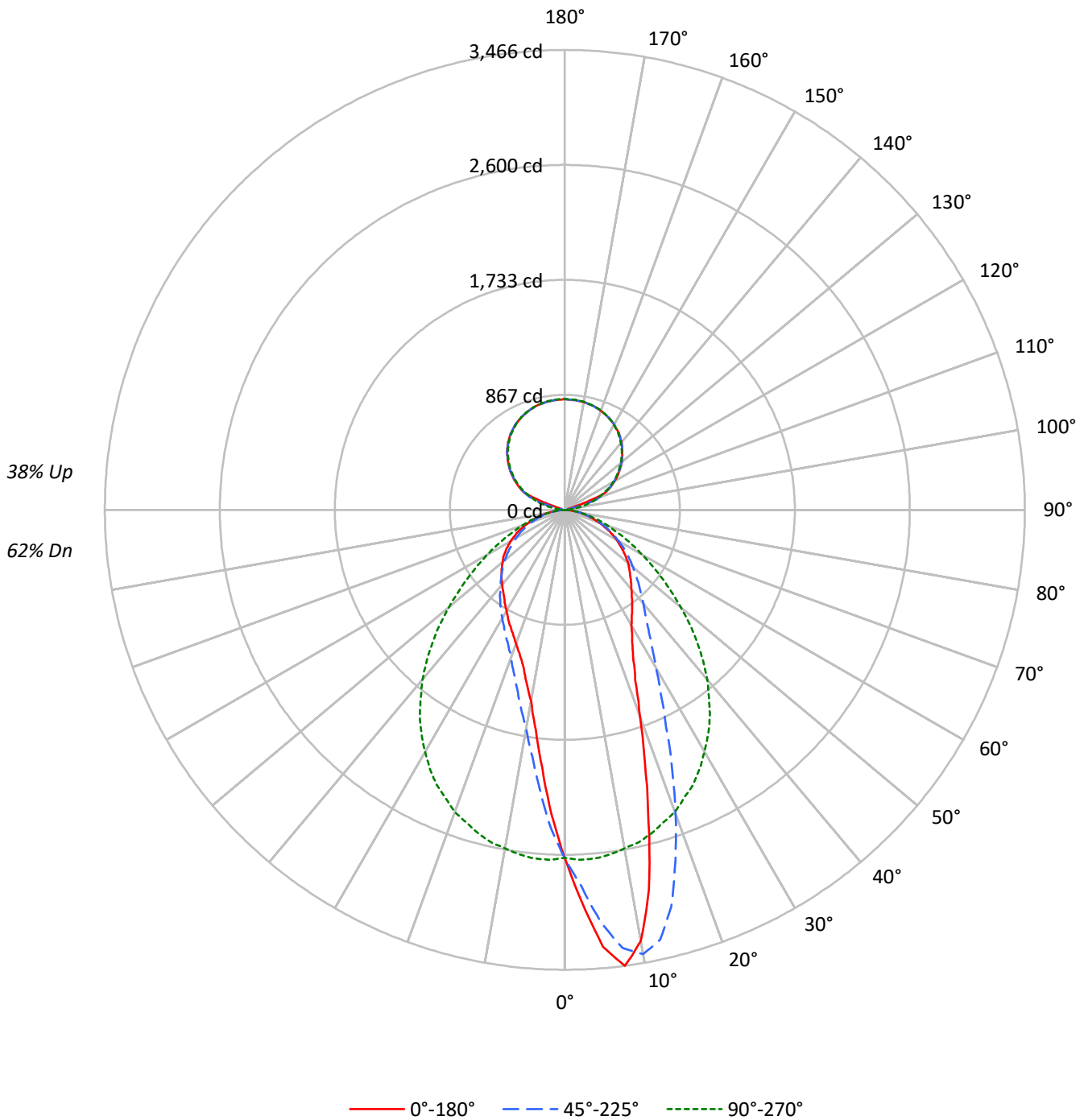
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6760.9 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 62.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P831300
CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

Luminous Intensity Polar Plot





TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	62				
1	101	97	93	90	95	91	88	85	80	78	76	70	68	67	61	59	58	54				
2	93	86	80	75	87	81	75	71	71	67	64	62	59	57	54	52	50	46				
3	85	76	69	63	80	72	65	60	63	59	54	56	52	49	49	46	44	40				
4	78	68	60	54	73	64	57	52	57	52	47	50	46	43	44	41	38	35				
5	72	61	53	47	68	58	51	45	52	46	41	46	41	38	40	37	34	31				
6	67	55	47	42	63	52	45	40	47	41	37	42	37	34	37	33	31	28				
7	62	50	43	37	58	48	41	36	43	37	33	38	34	30	34	30	28	25				
8	58	46	39	33	55	44	37	32	40	34	30	35	31	27	32	28	25	23				
9	54	42	35	30	51	40	34	29	37	31	27	33	28	25	29	26	23	21				
10	51	39	32	27	48	37	31	27	34	29	25	31	26	23	28	24	21	19				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	28243	28243	28243	28243	28243
5°	35718	33713	28496	22964	21102
10°	36066	37156	28306	18306	15996
15°	27164	34497	28113	15502	13527
20°	18927	27915	27755	13557	12287
25°	14433	21467	27143	12473	11525
30°	12485	17055	26166	11706	10912
35°	11583	14399	25039	11152	10479
40°	10967	12917	23456	10624	10333
45°	10602	11954	21444	10213	10268
50°	10419	11194	19063	9838	10215
55°	10031	10637	16726	9483	10260
60°	9672	10038	14417	9147	10092
65°	9088	9475	12437	8792	9892
70°	8393	8755	10578	8201	9312
75°	7594	7848	9062	7619	8509
80°	6267	6868	7172	6639	7172
85°	4965	5570	5261	5644	5718

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 24484 cd/sqm



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.1	3.7
10°-20°	617.1	9.1
20°-30°	730.7	10.8
30°-40°	734.7	10.9
40°-50°	674.1	10.0
50°-60°	556.4	8.2
60°-70°	393.6	5.8
70°-80°	210.1	3.1
80°-90°	55.0	0.8
90°-100°	29.4	0.4
100°-110°	142.1	2.1
110°-120°	348.3	5.2
120°-130°	442.1	6.5
130°-140°	472.3	7.0
140°-150°	441.7	6.5
150°-160°	356.2	5.3
160°-170°	229.9	3.4
170°-180°	79.2	1.2
0°-30°	1595.9	23.6
0°-40°	2330.6	34.5
0°-60°	3561.0	52.7
0°-90°	4219.7	62.4
90°-120°	519.7	7.7
90°-150°	1875.8	27.7
90°-180°	2541.0	37.6
0°-180°	6760.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2624	2624	2624	2624	2624	
5°	3306	3120	2637	2125	1953	315
15°	2438	3096	2523	1391	1214	673
25°	1215	1808	2285	1050	970	573
35°	882	1096	1906	849	798	554
45°	696	785	1409	671	674	539
55°	534	567	891	505	547	478
65°	357	372	488	345	388	355
75°	183	189	218	183	205	192
85°	40	45	43	46	46	45
90°	19	15	1	15	19	11
95°	24	19	38	19	24	20
105°	27	136	185	136	27	57
115°	364	356	346	356	364	343
125°	498	496	488	496	498	445
135°	614	614	608	614	614	473
145°	708	707	701	707	708	442
155°	771	772	772	772	771	356
165°	813	812	814	812	813	230
175°	830	831	834	831	830	79
180°	834	834	834	834	834	



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9
2.5°	2957.5	2954.5	2951.4	2936.2	2921.0	2913.7	2906.4	2884.5	2862.5	2838.2	2813.8
5°	3305.7	3314.3	3322.8	3313.0	3303.3	3273.5	3243.6	3204.1	3164.5	3120.1	3075.6
7.5°	3466.5	3471.3	3476.2	3470.1	3464.0	3456.1	3448.2	3412.9	3377.6	3331.9	3286.3
10°	3299.7	3310.6	3321.6	3345.3	3369.1	3395.8	3422.6	3417.8	3412.9	3399.5	3386.1
12.5°	2933.2	2946.6	2959.9	3007.4	3054.9	3115.8	3176.7	3229.0	3281.4	3317.9	3354.4
15°	2437.6	2474.7	2511.9	2555.1	2598.3	2687.8	2777.3	2887.5	2997.7	3095.7	3193.7
17.5°	2007.8	2021.8	2035.8	2082.1	2128.3	2241.0	2353.6	2480.8	2608.1	2770.6	2933.2
20°	1652.3	1665.0	1677.8	1738.7	1799.6	1887.9	1976.1	2119.2	2262.3	2437.0	2611.7
22.5°	1388.0	1408.1	1428.2	1462.3	1496.4	1581.0	1665.7	1792.9	1920.1	2113.1	2306.1
25°	1215.2	1229.8	1244.4	1265.1	1285.8	1353.3	1420.9	1525.6	1630.3	1807.5	1984.7
27.5°	1097.0	1103.1	1109.2	1129.9	1150.6	1194.5	1238.3	1328.4	1418.5	1568.9	1719.2
30°	1004.5	1008.8	1013.0	1031.3	1049.6	1079.4	1109.2	1174.4	1239.5	1372.2	1504.9
32.5°	940.0	943.0	946.1	960.1	974.1	995.4	1016.7	1064.2	1111.7	1221.2	1330.8
35°	881.5	883.4	885.2	895.5	905.9	921.7	937.5	973.5	1009.4	1095.8	1182.3
37.5°	830.4	832.8	835.3	841.4	847.4	861.4	875.4	904.1	932.7	999.0	1065.4
40°	780.5	784.7	789.0	793.3	797.5	809.1	820.7	842.6	864.5	919.3	974.1
42.5°	737.9	742.1	746.4	748.2	750.0	756.7	763.4	783.5	803.6	844.4	885.2
45°	696.5	698.3	700.1	701.9	703.8	709.2	714.7	732.4	750.0	785.3	820.7
47.5°	658.7	658.7	658.7	659.9	661.1	666.0	670.9	683.7	696.5	723.9	751.3
50°	622.2	622.2	622.2	620.4	618.5	621.6	624.6	634.4	644.1	668.5	692.8
52.5°	578.4	578.4	578.4	579.0	579.6	579.6	579.6	588.1	596.6	618.5	640.4
55°	534.5	537.0	539.4	537.6	535.7	537.0	538.2	543.7	549.1	566.8	584.4
57.5°	490.7	491.9	493.1	492.5	491.9	492.5	493.1	498.0	502.9	516.3	529.6
60°	449.3	449.3	449.3	448.1	446.9	448.1	449.3	451.7	454.2	466.3	478.5
62.5°	403.0	403.6	404.2	404.8	405.5	404.2	403.0	406.1	409.1	418.2	427.4
65°	356.8	357.4	358.0	359.8	361.6	360.4	359.2	362.2	365.3	372.0	378.7
67.5°	315.4	314.1	312.9	313.5	314.1	316.0	317.8	318.4	319.0	326.3	333.6
70°	266.7	267.9	269.1	268.5	267.9	268.5	269.1	270.9	272.7	278.2	283.7
72.5°	222.8	223.4	224.0	224.0	224.0	225.3	226.5	228.3	230.1	233.2	236.2
75°	182.6	182.6	182.6	183.9	185.1	185.7	186.3	186.3	186.3	188.7	191.2
77.5°	138.8	141.8	144.9	144.3	143.7	144.9	146.1	147.9	149.8	151.0	152.2
80°	101.1	101.1	101.1	101.7	102.3	104.1	105.9	107.1	108.4	110.8	113.2
82.5°	64.5	65.1	65.7	67.6	69.4	70.6	71.8	73.7	75.5	75.5	75.5
85°	40.2	39.0	37.7	39.0	40.2	41.4	42.6	43.2	43.8	45.1	46.3
87.5°	19.5	19.5	19.5	19.5	19.5	20.1	20.7	20.7	20.7	20.7	20.7
90°	18.6	18.3	18.0	17.8	17.5	17.1	16.5	16.0	15.4	14.9	13.1
92.5°	21.1	20.9	20.8	20.6	20.5	20.0	19.0	18.0	17.1	16.1	14.9
95°	23.5	23.5	23.5	23.5	23.5	23.1	22.1	21.1	20.2	19.2	17.7
97.5°	25.4	25.3	25.1	25.0	24.8	24.2	23.1	22.0	20.9	19.8	26.8
100°	26.0	25.9	25.7	25.6	25.5	24.8	23.7	22.6	21.5	20.4	41.9
102.5°	26.6	26.4	26.1	25.8	25.5	27.7	32.2	36.7	41.3	45.8	69.8
105°	27.3	27.0	26.7	26.4	26.1	38.2	62.6	86.9	111.3	135.6	148.0
107.5°	64.4	82.4	100.5	118.5	136.5	156.1	177.3	198.5	219.7	240.9	238.9
110°	170.3	190.0	209.7	229.4	249.0	261.1	265.7	270.2	274.8	279.3	277.8



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	322.7	322.9	323.2	323.5	323.8	323.3	322.0	320.8	319.6	318.3	316.8
115°	364.2	363.6	363.1	362.5	362.0	361.0	359.6	358.2	356.9	355.5	354.3
117.5°	397.6	397.5	397.3	397.2	397.1	396.4	395.3	394.2	393.1	392.0	391.3
120°	432.3	432.3	432.3	432.3	432.3	431.7	430.6	429.5	428.4	427.3	426.9
122.5°	466.4	466.2	466.1	465.9	465.8	465.4	464.7	464.0	463.3	462.6	462.1
125°	497.9	497.7	497.4	497.1	496.8	496.6	496.3	496.0	495.7	495.5	494.9
127.5°	528.9	529.2	529.5	529.7	530.0	529.9	529.5	529.1	528.7	528.3	527.6
130°	558.6	558.9	559.2	559.5	559.7	559.6	559.0	558.5	557.9	557.4	556.8
132.5°	585.9	586.3	586.7	587.1	587.5	587.5	586.9	586.4	585.8	585.3	584.8
135°	613.7	614.2	614.6	615.0	615.4	615.4	615.0	614.6	614.2	613.7	613.2
137.5°	640.4	640.7	640.9	641.2	641.5	641.3	640.6	639.9	639.2	638.5	638.2
140°	663.9	664.2	664.5	664.7	665.0	664.9	664.3	663.8	663.2	662.7	662.3
142.5°	685.6	686.0	686.4	686.8	687.2	687.2	686.8	686.4	686.0	685.6	685.2
145°	707.9	707.9	707.9	707.9	707.9	707.7	707.5	707.2	706.9	706.6	706.4
147.5°	724.0	724.7	725.4	726.1	726.7	726.9	726.7	726.4	726.1	725.8	725.6
150°	742.6	743.0	743.4	743.8	744.2	744.3	744.0	743.7	743.5	743.2	742.9
152.5°	757.4	758.1	758.8	759.5	760.2	760.3	759.7	759.2	758.6	758.1	757.9
155°	771.1	771.9	772.7	773.5	774.4	774.4	773.7	773.1	772.4	771.7	771.5
157.5°	782.8	783.9	785.0	786.1	787.2	787.4	786.5	785.7	784.9	784.1	784.2
160°	794.0	794.9	795.9	796.9	797.8	797.9	797.1	796.2	795.4	794.6	794.7
162.5°	804.5	805.3	806.2	807.0	807.8	807.7	806.8	805.8	804.8	803.9	804.0
165°	812.6	813.5	814.5	815.4	816.4	816.3	815.2	814.1	813.0	811.9	812.1
167.5°	818.7	819.8	820.9	822.0	823.1	823.1	822.0	820.9	819.8	818.7	818.7
170°	824.3	825.4	826.5	827.6	828.7	828.7	827.6	826.5	825.4	824.3	824.3
172.5°	827.4	828.7	829.9	831.1	832.4	832.4	831.3	830.2	829.1	828.0	827.9
175°	830.5	831.6	832.7	833.8	834.9	835.0	834.0	833.1	832.1	831.1	831.0
177.5°	831.1	832.5	833.9	835.3	836.6	836.8	835.7	834.6	833.5	832.4	832.2
180°	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6

TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9
2.5°	2806.5	2799.2	2772.4	2745.7	2715.2	2684.8	2662.3	2639.7	2606.2	2572.8	2545.4
5°	3041.5	3007.4	2950.8	2894.2	2817.5	2740.8	2689.0	2637.3	2567.9	2498.5	2443.1
7.5°	3227.8	3169.4	3090.2	3011.1	2910.6	2810.2	2715.2	2620.2	2514.3	2408.4	2321.9
10°	3346.5	3307.0	3215.6	3124.3	2989.8	2855.2	2722.5	2589.8	2453.4	2317.1	2202.6
12.5°	3358.1	3361.8	3277.7	3193.7	3041.5	2889.3	2728.0	2566.7	2395.0	2223.3	2090.0
15°	3256.4	3319.1	3272.9	3226.6	3073.2	2919.8	2721.3	2522.8	2325.0	2127.1	1973.1
17.5°	3067.7	3202.2	3208.9	3215.6	3062.2	2908.8	2689.0	2469.3	2245.2	2021.2	1859.3
20°	2810.2	3008.7	3076.8	3145.0	3020.2	2895.4	2659.2	2423.0	2172.2	1921.3	1751.5
22.5°	2547.2	2788.3	2913.1	3037.9	2945.3	2852.8	2601.4	2349.9	2085.1	1820.3	1648.0
25°	2247.7	2510.7	2702.4	2894.2	2837.6	2781.0	2533.2	2285.4	2003.5	1721.7	1545.7
27.5°	1986.5	2253.8	2485.1	2716.4	2704.3	2692.1	2446.1	2200.2	1911.6	1623.0	1453.2
30°	1753.9	2002.9	2261.7	2520.4	2550.2	2580.1	2342.6	2105.2	1816.0	1526.9	1363.1
32.5°	1548.2	1765.5	2043.1	2320.7	2379.2	2437.6	2223.3	2009.0	1722.9	1436.8	1279.1
35°	1379.5	1576.8	1854.4	2132.0	2205.0	2278.1	2091.8	1905.5	1626.7	1347.9	1197.5
37.5°	1230.4	1395.4	1666.3	1937.2	2026.7	2116.2	1949.4	1782.5	1521.4	1260.2	1122.0
40°	1106.8	1239.5	1488.5	1737.5	1841.0	1944.5	1806.9	1669.3	1421.5	1173.8	1046.5
42.5°	1003.3	1121.4	1347.3	1573.1	1672.4	1771.6	1655.3	1539.0	1318.6	1098.3	982.0
45°	915.0	1009.4	1214.5	1419.7	1514.1	1608.4	1508.6	1408.7	1214.5	1020.3	912.0
47.5°	832.2	913.2	1088.5	1263.9	1347.9	1431.9	1354.0	1276.0	1111.7	947.3	849.3
50°	757.9	823.1	976.5	1129.9	1203.0	1276.0	1207.2	1138.4	1003.3	868.1	782.9
52.5°	693.4	746.4	874.8	1003.3	1066.0	1128.7	1069.6	1010.6	903.4	796.3	722.0
55°	629.5	674.5	786.0	897.4	940.0	982.6	936.9	891.3	804.8	718.4	655.7
57.5°	569.8	610.0	701.3	792.6	825.5	858.4	817.0	775.6	710.5	645.3	593.0
60°	511.4	544.3	620.4	696.5	716.5	736.6	703.2	669.7	624.0	578.4	531.5
62.5°	457.2	487.0	543.7	600.3	613.7	627.1	601.5	575.9	541.2	506.5	470.0
65°	401.2	423.7	470.0	516.3	524.8	533.3	510.8	488.3	462.1	435.9	409.1
67.5°	349.4	365.3	403.0	440.8	441.4	442.0	423.7	405.5	390.8	376.2	354.9
70°	298.9	314.1	339.1	364.1	364.7	365.3	350.7	336.1	325.1	314.1	298.3
72.5°	247.2	258.1	277.0	295.9	294.7	293.4	284.3	275.2	266.7	258.1	246.6
75°	200.3	209.4	222.2	235.0	231.3	227.7	222.8	217.9	210.6	203.3	196.0
77.5°	157.7	163.2	170.5	177.8	175.3	172.9	168.6	164.4	158.9	153.4	150.4
80°	115.7	118.1	123.0	127.8	126.6	125.4	120.5	115.7	114.5	113.2	109.0
82.5°	78.5	81.6	82.8	84.0	83.4	82.8	79.1	75.5	74.3	73.1	72.4
85°	46.9	47.5	48.1	48.7	46.9	45.1	43.8	42.6	42.6	42.6	42.0
87.5°	21.3	21.9	21.9	21.9	21.3	20.7	19.5	18.3	18.9	19.5	19.5
90°	11.3	9.5	7.7	6.1	4.7	3.4	2.0	0.6	2.0	3.4	4.7
92.5°	13.6	12.4	11.1	10.9	11.8	12.6	13.4	14.2	13.4	12.6	11.8
95°	16.2	14.7	13.1	15.2	20.9	26.5	32.1	37.8	32.1	26.5	20.9
97.5°	33.9	40.9	47.9	53.3	57.2	61.0	64.9	68.7	64.9	61.0	57.2
100°	63.4	84.8	106.3	115.7	112.9	110.2	107.4	104.7	107.4	110.2	112.9
102.5°	93.7	117.7	141.6	152.7	150.9	149.1	147.3	145.5	147.3	149.1	150.9
105°	160.4	172.8	185.2	190.6	189.1	187.6	186.1	184.6	186.1	187.6	189.1
107.5°	236.8	234.7	232.7	231.0	229.8	228.5	227.3	226.1	227.3	228.5	229.8
110°	276.3	274.8	273.3	272.0	270.9	269.7	268.6	267.5	268.6	269.7	270.9



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	315.3	313.8	312.3	311.0	310.1	309.1	308.1	307.2	308.1	309.1	310.1
115°	353.0	351.8	350.5	349.5	348.7	347.9	347.0	346.2	347.0	347.9	348.7
117.5°	390.7	390.0	389.3	388.5	387.5	386.5	385.6	384.6	385.6	386.5	387.5
120°	426.5	426.1	425.7	424.9	423.6	422.4	421.1	419.9	421.1	422.4	423.6
122.5°	461.5	461.0	460.4	459.7	458.7	457.7	456.8	455.8	456.8	457.7	458.7
125°	494.4	493.8	493.3	492.4	491.3	490.2	489.1	488.0	489.1	490.2	491.3
127.5°	526.9	526.2	525.5	524.6	523.5	522.4	521.3	520.2	521.3	522.4	523.5
130°	556.3	555.7	555.2	554.4	553.3	552.2	551.1	550.0	551.1	552.2	553.3
132.5°	584.4	584.0	583.6	582.9	581.8	580.6	579.5	578.4	579.5	580.6	581.8
135°	612.6	612.1	611.5	610.9	610.0	609.2	608.4	607.6	608.4	609.2	610.0
137.5°	638.0	637.7	637.4	636.7	635.6	634.5	633.4	632.3	633.4	634.5	635.6
140°	661.8	661.4	661.0	660.4	659.6	658.8	657.9	657.1	657.9	658.8	659.6
142.5°	684.8	684.4	683.9	683.3	682.5	681.7	680.8	680.0	680.8	681.7	682.5
145°	706.1	705.8	705.5	704.9	704.0	703.0	702.0	701.1	702.0	703.0	704.0
147.5°	725.3	725.0	724.7	724.3	723.6	722.9	722.2	721.5	722.2	722.9	723.6
150°	742.6	742.4	742.1	741.7	741.3	740.9	740.5	740.1	740.5	740.9	741.3
152.5°	757.8	757.6	757.5	757.4	757.2	757.1	757.0	756.8	757.0	757.1	757.2
155°	771.4	771.3	771.1	771.2	771.5	771.7	772.0	772.3	772.0	771.7	771.5
157.5°	784.3	784.5	784.6	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7
160°	794.9	795.0	795.1	795.3	795.4	795.6	795.7	795.8	795.7	795.6	795.4
162.5°	804.2	804.3	804.4	804.7	805.1	805.5	805.9	806.4	805.9	805.5	805.1
165°	812.2	812.3	812.5	812.8	813.2	813.6	814.0	814.4	814.0	813.6	813.2
167.5°	818.7	818.7	818.7	819.0	819.6	820.1	820.7	821.2	820.7	820.1	819.6
170°	824.3	824.3	824.3	824.6	825.1	825.7	826.2	826.8	826.2	825.7	825.1
172.5°	827.8	827.6	827.5	827.8	828.4	829.1	829.8	830.5	829.8	829.1	828.4
175°	830.9	830.7	830.6	830.9	831.5	832.2	832.9	833.6	832.9	832.2	831.5
177.5°	832.1	832.0	831.8	832.1	832.8	833.5	834.2	834.8	834.2	833.5	832.8
180°	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9	2623.9
2.5°	2518.0	2494.2	2470.5	2452.2	2434.0	2402.9	2371.9	2364.6	2357.2	2346.9	2336.5
5°	2387.7	2329.2	2270.8	2218.4	2166.1	2125.3	2084.5	2057.7	2030.9	2011.5	1992.0
7.5°	2235.5	2147.8	2060.2	1998.1	1936.0	1876.9	1817.9	1799.0	1780.1	1754.5	1729.0
10°	2088.2	1991.4	1894.6	1813.6	1732.6	1674.8	1617.0	1593.8	1570.7	1538.4	1506.2
12.5°	1956.7	1850.7	1744.8	1663.2	1581.6	1525.6	1469.6	1436.1	1402.7	1384.4	1366.1
15°	1819.1	1705.8	1592.6	1517.1	1441.6	1391.1	1340.6	1311.3	1282.1	1264.5	1246.8
17.5°	1697.3	1585.3	1473.3	1400.8	1328.4	1282.1	1235.8	1210.3	1184.7	1171.3	1157.9
20°	1581.6	1472.1	1362.5	1291.9	1221.2	1183.5	1145.7	1129.3	1112.9	1101.9	1091.0
22.5°	1475.7	1368.0	1260.2	1199.9	1139.7	1109.2	1078.8	1067.2	1055.6	1046.5	1037.4
25°	1369.8	1273.6	1177.4	1126.3	1075.1	1050.2	1025.2	1013.6	1002.1	992.9	983.8
27.5°	1283.3	1191.4	1099.5	1055.6	1011.8	992.3	972.9	963.7	954.6	946.1	937.5
30°	1199.3	1117.1	1034.9	997.2	959.5	941.8	924.1	915.0	905.9	898.0	890.1
32.5°	1121.4	1050.8	980.2	945.5	910.8	896.1	881.5	870.6	859.6	853.5	847.4
35°	1047.1	983.8	920.5	891.9	863.3	848.7	834.0	824.9	815.8	810.9	806.0
37.5°	983.8	927.2	870.6	843.2	815.8	801.8	787.8	779.9	771.9	770.1	768.3
40°	919.3	870.6	821.9	795.1	768.3	756.1	743.9	739.1	734.2	733.0	731.8
42.5°	865.7	818.2	770.7	746.4	722.0	711.7	701.3	698.9	696.5	698.3	700.1
45°	803.6	764.0	724.5	701.9	679.4	670.9	662.4	660.5	658.7	662.4	666.0
47.5°	751.3	714.7	678.2	656.9	635.6	629.5	623.4	622.8	622.2	627.1	631.9
50°	697.7	662.4	627.1	610.0	593.0	587.5	582.0	583.8	585.7	593.6	601.5
52.5°	647.8	614.9	582.0	566.2	550.3	546.7	543.0	547.3	551.6	560.1	568.6
55°	593.0	563.1	533.3	521.1	509.0	505.3	501.6	510.2	518.7	526.6	534.5
57.5°	540.6	514.4	488.3	477.3	466.3	465.7	465.1	473.0	480.9	489.5	498.0
60°	484.6	462.7	440.8	432.2	423.7	424.9	426.2	435.3	444.4	451.1	457.8
62.5°	433.5	415.2	396.9	389.0	381.1	384.1	387.2	396.3	405.5	413.4	421.3
65°	382.3	367.1	351.9	346.4	340.9	345.2	349.4	357.4	365.3	370.8	376.2
67.5°	333.6	320.8	308.0	303.8	299.5	303.8	308.0	316.0	323.9	329.4	334.8
70°	282.5	272.1	261.8	258.7	255.7	260.6	265.4	272.1	278.8	284.3	289.8
72.5°	235.0	227.1	219.2	218.6	217.9	222.2	226.5	233.2	239.9	243.5	247.2
75°	188.7	184.5	180.2	179.6	179.0	183.2	187.5	191.2	194.8	197.9	200.9
77.5°	147.3	143.7	140.0	140.6	141.2	144.3	147.3	151.0	154.6	156.5	158.3
80°	104.7	103.5	102.3	103.5	104.7	107.1	109.6	112.0	114.5	115.7	116.9
82.5°	71.8	70.6	69.4	71.2	73.1	74.9	76.7	78.5	80.4	81.0	81.6
85°	41.4	43.2	45.1	45.1	45.1	45.7	46.3	46.9	47.5	46.9	46.3
87.5°	19.5	20.1	20.7	20.7	20.7	21.3	21.9	21.9	21.9	21.3	20.7
90°	6.1	7.7	9.5	11.3	13.1	14.9	15.4	16.0	16.5	17.1	17.5
92.5°	10.9	11.1	12.4	13.6	14.9	16.1	17.1	18.0	19.0	20.0	20.5
95°	15.2	13.1	14.7	16.2	17.7	19.2	20.2	21.1	22.1	23.1	23.5
97.5°	53.3	47.9	40.9	33.9	26.8	19.8	20.9	22.0	23.1	24.2	24.8
100°	115.7	106.3	84.8	63.4	41.9	20.4	21.5	22.6	23.7	24.8	25.5
102.5°	152.7	141.6	117.7	93.7	69.8	45.8	41.3	36.7	32.2	27.7	25.5
105°	190.6	185.2	172.8	160.4	148.0	135.6	111.3	86.9	62.6	38.2	26.1
107.5°	231.0	232.7	234.7	236.8	238.9	240.9	219.7	198.5	177.3	156.1	136.5
110°	272.0	273.3	274.8	276.3	277.8	279.3	274.8	270.2	265.7	261.1	249.0



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	311.0	312.3	313.8	315.3	316.8	318.3	319.6	320.8	322.0	323.3	323.8
115°	349.5	350.5	351.8	353.0	354.3	355.5	356.9	358.2	359.6	361.0	362.0
117.5°	388.5	389.3	390.0	390.7	391.3	392.0	393.1	394.2	395.3	396.4	397.1
120°	424.9	425.7	426.1	426.5	426.9	427.3	428.4	429.5	430.6	431.7	432.3
122.5°	459.7	460.4	461.0	461.5	462.1	462.6	463.3	464.0	464.7	465.4	465.8
125°	492.4	493.3	493.8	494.4	494.9	495.5	495.7	496.0	496.3	496.6	496.8
127.5°	524.6	525.5	526.2	526.9	527.6	528.3	528.7	529.1	529.5	529.9	530.0
130°	554.4	555.2	555.7	556.3	556.8	557.4	557.9	558.5	559.0	559.6	559.7
132.5°	582.9	583.6	584.0	584.4	584.8	585.3	585.8	586.4	586.9	587.5	587.5
135°	610.9	611.5	612.1	612.6	613.2	613.7	614.2	614.6	615.0	615.4	615.4
137.5°	636.7	637.4	637.7	638.0	638.2	638.5	639.2	639.9	640.6	641.3	641.5
140°	660.4	661.0	661.4	661.8	662.3	662.7	663.2	663.8	664.3	664.9	665.0
142.5°	683.3	683.9	684.4	684.8	685.2	685.6	686.0	686.4	686.8	687.2	687.2
145°	704.9	705.5	705.8	706.1	706.4	706.6	706.9	707.2	707.5	707.7	707.9
147.5°	724.3	724.7	725.0	725.3	725.6	725.8	726.1	726.4	726.7	726.9	726.7
150°	741.7	742.1	742.4	742.6	742.9	743.2	743.5	743.7	744.0	744.3	744.2
152.5°	757.4	757.5	757.6	757.8	757.9	758.1	758.6	759.2	759.7	760.3	760.2
155°	771.2	771.1	771.3	771.4	771.5	771.7	772.4	773.1	773.7	774.4	774.4
157.5°	784.7	784.6	784.5	784.3	784.2	784.1	784.9	785.7	786.5	787.4	787.2
160°	795.3	795.1	795.0	794.9	794.7	794.6	795.4	796.2	797.1	797.9	797.8
162.5°	804.7	804.4	804.3	804.2	804.0	803.9	804.8	805.8	806.8	807.7	807.8
165°	812.8	812.5	812.3	812.2	812.1	811.9	813.0	814.1	815.2	816.3	816.4
167.5°	819.0	818.7	818.7	818.7	818.7	818.7	819.8	820.9	822.0	823.1	823.1
170°	824.6	824.3	824.3	824.3	824.3	824.3	825.4	826.5	827.6	828.7	828.7
172.5°	827.8	827.5	827.6	827.8	827.9	828.0	829.1	830.2	831.3	832.4	832.4
175°	830.9	830.6	830.7	830.9	831.0	831.1	832.1	833.1	834.0	835.0	834.9
177.5°	832.1	831.8	832.0	832.1	832.2	832.4	833.5	834.6	835.7	836.8	836.6
180°	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6	833.6



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2623.9	2623.9	2623.9	2623.9
2.5°	2332.3	2328.0	2311.0	2293.9
5°	1977.4	1962.7	1957.9	1953.0
7.5°	1727.8	1726.5	1701.0	1675.4
10°	1508.0	1509.8	1486.7	1463.5
12.5°	1350.9	1335.7	1333.9	1332.0
15°	1232.8	1218.8	1216.4	1213.9
17.5°	1149.4	1140.9	1138.4	1136.0
20°	1086.1	1081.2	1077.0	1072.7
22.5°	1031.3	1025.2	1021.6	1017.9
25°	978.3	972.9	971.6	970.4
27.5°	930.8	924.1	924.1	924.1
30°	885.8	881.5	879.7	877.9
32.5°	843.8	840.1	840.1	840.1
35°	804.2	802.4	800.0	797.5
37.5°	768.3	768.3	767.1	765.9
40°	733.6	735.4	735.4	735.4
42.5°	701.9	703.8	703.8	703.8
45°	669.1	672.1	673.3	674.5
47.5°	636.8	641.7	642.9	644.1
50°	605.1	608.8	609.4	610.0
52.5°	572.9	577.1	580.2	583.2
55°	538.8	543.0	544.9	546.7
57.5°	502.3	506.5	507.1	507.7
60°	462.1	466.3	467.6	468.8
62.5°	423.7	426.2	427.4	428.6
65°	379.9	383.5	386.0	388.4
67.5°	337.9	340.9	340.9	340.9
70°	291.0	292.2	294.0	295.9
72.5°	247.8	248.4	248.4	248.4
75°	202.1	203.3	203.9	204.6
77.5°	158.9	159.5	159.5	159.5
80°	116.3	115.7	115.7	115.7
82.5°	79.8	77.9	77.9	77.9
85°	45.7	45.1	45.7	46.3
87.5°	20.7	20.7	20.7	20.7
90°	17.8	18.0	18.3	18.6
92.5°	20.6	20.8	20.9	21.1
95°	23.5	23.5	23.5	23.5
97.5°	25.0	25.1	25.3	25.4
100°	25.6	25.7	25.9	26.0
102.5°	25.8	26.1	26.4	26.6
105°	26.4	26.7	27.0	27.3
107.5°	118.5	100.5	82.4	64.4
110°	229.4	209.7	190.0	170.3



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	323.5	323.2	322.9	322.7
115°	362.5	363.1	363.6	364.2
117.5°	397.2	397.3	397.5	397.6
120°	432.3	432.3	432.3	432.3
122.5°	465.9	466.1	466.2	466.4
125°	497.1	497.4	497.7	497.9
127.5°	529.7	529.5	529.2	528.9
130°	559.5	559.2	558.9	558.6
132.5°	587.1	586.7	586.3	585.9
135°	615.0	614.6	614.2	613.7
137.5°	641.2	640.9	640.7	640.4
140°	664.7	664.5	664.2	663.9
142.5°	686.8	686.4	686.0	685.6
145°	707.9	707.9	707.9	707.9
147.5°	726.1	725.4	724.7	724.0
150°	743.8	743.4	743.0	742.6
152.5°	759.5	758.8	758.1	757.4
155°	773.5	772.7	771.9	771.1
157.5°	786.1	785.0	783.9	782.8
160°	796.9	795.9	794.9	794.0
162.5°	807.0	806.2	805.3	804.5
165°	815.4	814.5	813.5	812.6
167.5°	822.0	820.9	819.8	818.7
170°	827.6	826.5	825.4	824.3
172.5°	831.1	829.9	828.7	827.4
175°	833.8	832.7	831.6	830.5
177.5°	835.3	833.9	832.5	831.1
180°	833.6	833.6	833.6	833.6



TEST NUMBER: P831300

CATALOG NUMBER: S123DIP-S1165D805U927-4F0-1E-UDD-G

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference 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	16.26	17.20	17.11	18.07	19.15	18.50	19.44	19.35	20.30	21.39
	3H	17.92	18.76	18.78	19.63	20.74	19.93	20.77	20.79	21.65	22.76
	4H	18.50	19.29	19.38	20.17	21.29	20.38	21.18	21.26	22.06	23.18
	6H	18.87	19.60	19.76	20.49	21.63	20.66	21.39	21.55	22.28	23.42
	8H	18.97	19.66	19.87	20.57	21.71	20.73	21.42	21.63	22.33	23.46
	12H	19.02	19.68	19.92	20.58	21.74	20.75	21.41	21.65	22.31	23.47
4H	2H	16.85	17.64	17.73	18.52	19.65	18.67	19.46	19.56	20.35	21.47
	3H	18.68	19.34	19.58	20.26	21.39	20.30	20.96	21.19	21.87	23.01
	4H	19.38	19.98	20.29	20.89	22.06	20.88	21.48	21.79	22.40	23.56
	6H	19.86	20.38	20.78	21.32	22.48	21.29	21.81	22.21	22.74	23.91
	8H	20.00	20.48	20.92	21.41	22.59	21.41	21.89	22.33	22.82	24.00
	12H	20.07	20.51	21.01	21.45	22.64	21.45	21.89	22.40	22.84	24.02
8H	4H	19.66	20.14	20.58	21.07	22.25	21.00	21.48	21.92	22.41	23.59
	6H	20.25	20.65	21.20	21.62	22.79	21.50	21.90	22.45	22.87	24.05
	8H	20.46	20.81	21.41	21.77	22.96	21.68	22.03	22.64	22.99	24.19
	12H	20.58	20.89	21.54	21.85	23.09	21.79	22.10	22.75	23.05	24.30
12H	4H	19.66	20.09	20.60	21.04	22.23	20.97	21.41	21.92	22.36	23.54
	6H	20.30	20.65	21.26	21.61	22.81	21.51	21.87	22.47	22.83	24.02
	8H	20.54	20.85	21.50	21.80	23.05	21.72	22.03	22.68	22.98	24.23