

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: P831193

Luminaire Tested: S123DIP-S1165D1025U927-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

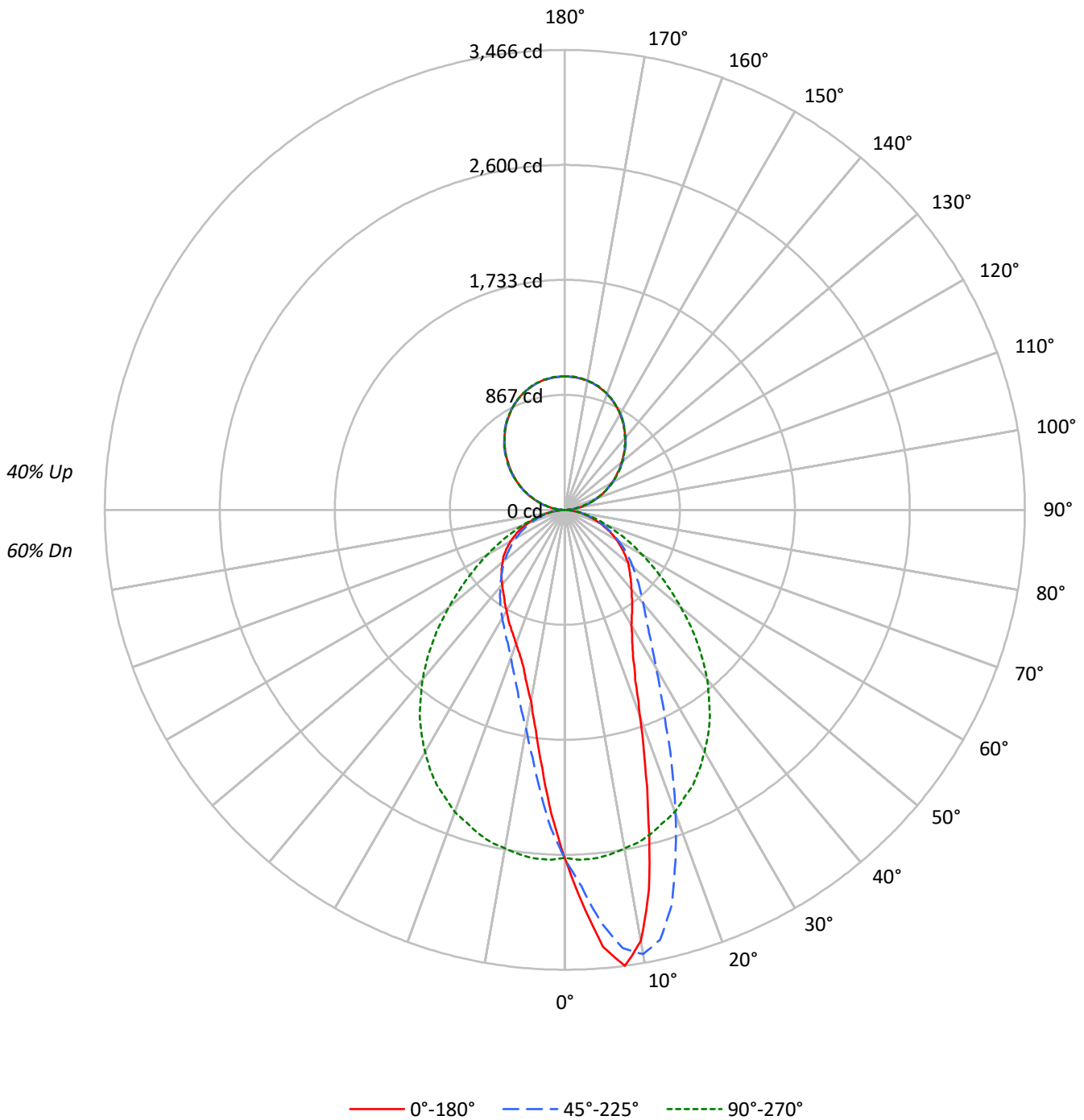
Test Method: LM-79-2019  
Report Number: P831193  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S1165D1025U927-4F0-1E-UDD-G1  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7009.3 lumens  
Efficiency: N/A  
Efficacy: 102.9 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): 68.1  
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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR	0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60	
	1	101	97	93	89	94	90	87	84	79	77	74	69	67	65	59	58	57	52	
	2	92	85	79	74	86	80	75	70	70	66	63	61	58	56	53	51	49	45	
	3	85	75	68	63	79	71	65	60	62	58	54	55	51	48	47	45	42	39	
	4	78	67	60	54	73	64	57	51	56	51	47	49	45	42	43	40	37	34	
	5	72	61	53	47	67	57	50	45	51	45	41	45	40	37	39	36	33	30	
	6	67	55	47	41	62	52	45	40	46	40	36	41	36	33	36	32	30	27	
	7	62	50	42	37	58	47	40	35	42	37	32	38	33	30	33	29	27	24	
	8	58	46	38	33	54	43	36	32	39	33	29	35	30	27	31	27	24	22	
	9	54	42	35	30	51	40	33	29	36	30	27	32	28	24	29	25	22	20	
	10	51	39	32	27	48	37	31	26	33	28	24	30	26	22	27	23	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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.1	3.5
10°-20°	617.1	8.8
20°-30°	730.7	10.4
30°-40°	734.7	10.5
40°-50°	674.1	9.6
50°-60°	556.4	7.9
60°-70°	393.6	5.6
70°-80°	210.1	3.0
80°-90°	55.4	0.8
90°-100°	64.8	0.9
100°-110°	196.1	2.8
110°-120°	333.9	4.8
120°-130°	439.2	6.3
130°-140°	493.7	7.0
140°-150°	485.4	6.9
150°-160°	408.7	5.8
160°-170°	272.1	3.9
170°-180°	95.3	1.4
0°-30°	1595.9	22.8
0°-40°	2330.6	33.3
0°-60°	3561.0	50.8
0°-90°	4220.1	60.2
90°-120°	594.8	8.5
90°-150°	2013.2	28.7
90°-180°	2789.0	39.8
0°-180°	7009.3	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°	24	19	1	19	24	14
95°	62	58	47	58	62	62
105°	188	187	178	187	188	199
115°	337	337	336	337	337	334
125°	486	493	492	493	486	435
135°	637	642	638	642	637	490
145°	774	778	774	778	774	484
155°	885	887	886	887	885	408
165°	962	963	966	963	962	272
175°	1000	1001	1004	1001	1000	95
180°	1007	1007	1007	1007	1007	



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**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°	23.7	23.4	23.0	22.7	22.3	21.8	21.1	20.4	19.7	19.0	16.7
92.5°	34.0	34.4	34.7	35.1	35.4	35.3	34.8	34.3	33.7	33.2	32.2
95°	61.7	61.7	61.7	61.7	61.7	61.3	60.6	59.9	59.2	58.5	57.1
97.5°	88.6	88.7	88.9	89.1	89.3	88.9	88.0	87.2	86.3	85.4	84.3
100°	120.2	119.8	119.5	119.1	118.8	118.4	117.8	117.3	116.8	116.2	115.4
102.5°	152.6	152.8	153.0	153.1	153.3	153.1	152.6	152.1	151.6	151.0	149.8
105°	188.2	187.8	187.5	187.1	186.8	186.6	186.6	186.6	186.6	186.6	185.0
107.5°	224.6	224.8	224.9	225.1	225.3	225.1	224.6	224.0	223.5	223.0	222.3
110°	261.7	262.1	262.4	262.8	263.1	263.0	262.3	261.6	260.9	260.2	259.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	301.3	301.3	301.3	301.3	301.3	300.8	300.0	299.1	298.2	297.3	297.3
115°	336.9	337.0	337.2	337.4	337.6	337.6	337.4	337.2	337.0	336.9	337.2
117.5°	373.2	373.8	374.3	374.8	375.3	375.6	375.6	375.6	375.6	375.6	376.0
120°	412.0	412.3	412.7	413.0	413.4	413.7	413.8	414.0	414.2	414.4	415.2
122.5°	449.2	449.7	450.2	450.7	451.3	451.8	452.3	452.8	453.4	453.9	454.2
125°	486.3	487.0	487.7	488.4	489.1	489.8	490.5	491.2	491.9	492.6	493.0
127.5°	523.5	524.2	524.9	525.6	526.3	527.2	528.2	529.3	530.3	531.4	531.7
130°	559.9	561.1	562.3	563.5	564.8	565.7	566.4	567.2	567.9	568.6	569.1
132.5°	597.8	598.7	599.6	600.5	601.3	602.2	603.1	604.0	604.8	605.7	606.1
135°	637.4	637.7	638.1	638.4	638.8	639.3	640.0	640.7	641.4	642.1	642.3
137.5°	672.1	672.7	673.2	673.7	674.3	675.0	675.8	676.7	677.6	678.5	677.9
140°	706.2	707.4	708.6	709.8	711.1	711.8	711.9	712.1	712.3	712.5	712.3
142.5°	740.9	741.8	742.7	743.6	744.5	745.0	745.2	745.3	745.5	745.7	745.3
145°	774.2	774.9	775.6	776.3	777.0	777.4	777.6	777.8	777.9	778.1	777.6
147.5°	804.2	805.3	806.3	807.4	808.4	808.9	808.9	808.9	808.9	808.9	808.4
150°	832.7	833.7	834.8	835.8	836.9	837.4	837.4	837.4	837.4	837.4	837.1
152.5°	860.3	861.2	862.1	863.0	863.9	864.1	863.8	863.4	863.1	862.7	862.5
155°	884.9	886.1	887.3	888.6	889.8	890.0	889.3	888.6	887.9	887.2	887.1
157.5°	907.8	908.8	909.9	911.0	912.0	912.2	911.5	910.8	910.1	909.4	909.2
160°	929.9	930.6	931.3	932.0	932.7	932.7	931.8	930.9	930.0	929.1	929.1
162.5°	946.5	947.8	949.0	950.2	951.5	951.6	950.8	949.9	949.0	948.1	947.9
165°	962.4	963.6	964.8	966.0	967.3	967.4	966.3	965.3	964.2	963.1	963.1
167.5°	976.6	977.6	978.7	979.8	980.8	980.8	979.8	978.7	977.6	976.6	976.4
170°	986.9	988.1	989.3	990.6	991.8	991.8	990.6	989.3	988.1	986.9	986.9
172.5°	994.8	996.0	997.2	998.5	999.7	999.8	998.7	997.7	996.6	995.6	995.6
175°	1000.3	1001.5	1002.8	1004.0	1005.2	1005.3	1004.3	1003.2	1002.2	1001.1	1001.1
177.5°	1003.5	1004.7	1005.9	1007.2	1008.4	1008.5	1007.4	1006.4	1005.3	1004.3	1004.3
180°	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6



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**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°	14.4	12.1	9.8	7.8	6.1	4.3	2.5	0.8	2.5	4.3	6.1
92.5°	31.1	30.0	29.0	27.9	26.9	25.8	24.8	23.7	24.8	25.8	26.9
95°	55.7	54.3	52.9	51.6	50.3	49.1	47.9	46.7	47.9	49.1	50.3
97.5°	83.3	82.2	81.2	80.2	79.3	78.5	77.6	76.7	77.6	78.5	79.3
100°	114.5	113.6	112.7	111.8	110.7	109.7	108.6	107.5	108.6	109.7	110.7
102.5°	148.6	147.3	146.1	145.2	144.7	144.2	143.7	143.1	143.7	144.2	144.7
105°	183.5	181.9	180.3	179.3	179.0	178.6	178.3	177.9	178.3	178.6	179.0
107.5°	221.6	220.9	220.2	219.7	219.6	219.4	219.2	219.0	219.2	219.4	219.6
110°	259.5	259.1	258.8	258.4	258.1	257.7	257.3	257.0	257.3	257.7	258.1





TEST NUMBER: P831193

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	297.3	297.3	297.3	297.2	297.1	296.9	296.7	296.5	296.7	296.9	297.1
115°	337.6	337.9	338.3	338.2	337.7	337.1	336.6	336.1	336.6	337.1	337.7
117.5°	376.3	376.7	377.0	377.1	376.9	376.8	376.6	376.4	376.6	376.8	376.9
120°	416.1	417.0	417.9	417.8	416.7	415.7	414.6	413.6	414.6	415.7	416.7
122.5°	454.6	455.0	455.3	455.1	454.4	453.7	453.0	452.3	453.0	453.7	454.4
125°	493.3	493.7	494.1	494.0	493.4	492.9	492.4	491.9	492.4	492.9	493.4
127.5°	532.1	532.4	532.8	532.4	531.4	530.3	529.3	528.2	529.3	530.3	531.4
130°	569.6	570.1	570.7	570.2	568.8	567.4	566.0	564.6	566.0	567.4	568.8
132.5°	606.4	606.8	607.1	606.6	605.2	603.8	602.4	601.0	602.4	603.8	605.2
135°	642.5	642.6	642.8	642.4	641.3	640.3	639.2	638.1	639.2	640.3	641.3
137.5°	677.4	676.9	676.4	675.7	674.8	673.9	673.0	672.1	673.0	673.9	674.8
140°	712.1	711.9	711.8	711.2	710.4	709.5	708.6	707.7	708.6	709.5	710.4
142.5°	745.0	744.6	744.3	743.7	742.8	741.9	741.0	740.2	741.0	741.9	742.8
145°	777.1	776.5	776.0	775.6	775.2	774.9	774.5	774.2	774.5	774.9	775.2
147.5°	807.9	807.4	806.8	806.2	805.5	804.8	804.1	803.4	804.1	804.8	805.5
150°	836.7	836.4	836.0	835.7	835.3	835.0	834.6	834.3	834.6	835.0	835.3
152.5°	862.4	862.2	862.0	861.7	861.1	860.6	860.1	859.6	860.1	860.6	861.1
155°	886.9	886.7	886.5	886.4	886.4	886.4	886.4	886.4	886.4	886.4	886.4
157.5°	909.0	908.8	908.7	908.7	908.8	909.0	909.2	909.4	909.2	909.0	908.8
160°	929.1	929.1	929.1	929.3	929.7	930.0	930.4	930.7	930.4	930.0	929.7
162.5°	947.8	947.6	947.4	947.6	948.1	948.7	949.2	949.7	949.2	948.7	948.1
165°	963.1	963.1	963.1	963.4	963.9	964.5	965.0	965.5	965.0	964.5	963.9
167.5°	976.2	976.1	975.9	976.2	976.9	977.6	978.3	979.0	978.3	977.6	976.9
170°	986.9	986.9	986.9	987.2	987.9	988.6	989.3	990.0	989.3	988.6	987.9
172.5°	995.6	995.6	995.6	995.9	996.6	997.3	998.0	998.7	998.0	997.3	996.6
175°	1001.1	1001.1	1001.1	1001.5	1002.2	1002.9	1003.6	1004.3	1003.6	1002.9	1002.2
177.5°	1004.3	1004.3	1004.3	1004.6	1005.3	1006.0	1006.7	1007.4	1006.7	1006.0	1005.3
180°	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6



TEST NUMBER: P831193

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-G1

**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°	7.8	9.8	12.1	14.4	16.7	19.0	19.7	20.4	21.1	21.8	22.3
92.5°	27.9	29.0	30.0	31.1	32.2	33.2	33.7	34.3	34.8	35.3	35.4
95°	51.6	52.9	54.3	55.7	57.1	58.5	59.2	59.9	60.6	61.3	61.7
97.5°	80.2	81.2	82.2	83.3	84.3	85.4	86.3	87.2	88.0	88.9	89.3
100°	111.8	112.7	113.6	114.5	115.4	116.2	116.8	117.3	117.8	118.4	118.8
102.5°	145.2	146.1	147.3	148.6	149.8	151.0	151.6	152.1	152.6	153.1	153.3
105°	179.3	180.3	181.9	183.5	185.0	186.6	186.6	186.6	186.6	186.6	186.8
107.5°	219.7	220.2	220.9	221.6	222.3	223.0	223.5	224.0	224.6	225.1	225.3
110°	258.4	258.8	259.1	259.5	259.8	260.2	260.9	261.6	262.3	263.0	263.1



TEST NUMBER: P831193

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	297.2	297.3	297.3	297.3	297.3	297.3	298.2	299.1	300.0	300.8	301.3
115°	338.2	338.3	337.9	337.6	337.2	336.9	337.0	337.2	337.4	337.6	337.6
117.5°	377.1	377.0	376.7	376.3	376.0	375.6	375.6	375.6	375.6	375.6	375.3
120°	417.8	417.9	417.0	416.1	415.2	414.4	414.2	414.0	413.8	413.7	413.4
122.5°	455.1	455.3	455.0	454.6	454.2	453.9	453.4	452.8	452.3	451.8	451.3
125°	494.0	494.1	493.7	493.3	493.0	492.6	491.9	491.2	490.5	489.8	489.1
127.5°	532.4	532.8	532.4	532.1	531.7	531.4	530.3	529.3	528.2	527.2	526.3
130°	570.2	570.7	570.1	569.6	569.1	568.6	567.9	567.2	566.4	565.7	564.8
132.5°	606.6	607.1	606.8	606.4	606.1	605.7	604.8	604.0	603.1	602.2	601.3
135°	642.4	642.8	642.6	642.5	642.3	642.1	641.4	640.7	640.0	639.3	638.8
137.5°	675.7	676.4	676.9	677.4	677.9	678.5	677.6	676.7	675.8	675.0	674.3
140°	711.2	711.8	711.9	712.1	712.3	712.5	712.3	712.1	711.9	711.8	711.1
142.5°	743.7	744.3	744.6	745.0	745.3	745.7	745.5	745.3	745.2	745.0	744.5
145°	775.6	776.0	776.5	777.1	777.6	778.1	777.9	777.8	777.6	777.4	777.0
147.5°	806.2	806.8	807.4	807.9	808.4	808.9	808.9	808.9	808.9	808.9	808.4
150°	835.7	836.0	836.4	836.7	837.1	837.4	837.4	837.4	837.4	837.4	836.9
152.5°	861.7	862.0	862.2	862.4	862.5	862.7	863.1	863.4	863.8	864.1	863.9
155°	886.4	886.5	886.7	886.9	887.1	887.2	887.9	888.6	889.3	890.0	889.8
157.5°	908.7	908.7	908.8	909.0	909.2	909.4	910.1	910.8	911.5	912.2	912.0
160°	929.3	929.1	929.1	929.1	929.1	929.1	930.0	930.9	931.8	932.7	932.7
162.5°	947.6	947.4	947.6	947.8	947.9	948.1	949.0	949.9	950.8	951.6	951.5
165°	963.4	963.1	963.1	963.1	963.1	963.1	964.2	965.3	966.3	967.4	967.3
167.5°	976.2	975.9	976.1	976.2	976.4	976.6	977.6	978.7	979.8	980.8	980.8
170°	987.2	986.9	986.9	986.9	986.9	986.9	988.1	989.3	990.6	991.8	991.8
172.5°	995.9	995.6	995.6	995.6	995.6	995.6	996.6	997.7	998.7	999.8	999.7
175°	1001.5	1001.1	1001.1	1001.1	1001.1	1001.1	1002.2	1003.2	1004.3	1005.3	1005.2
177.5°	1004.6	1004.3	1004.3	1004.3	1004.3	1004.3	1005.3	1006.4	1007.4	1008.5	1008.4
180°	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6	1006.6



TEST NUMBER: P831193

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-G1

**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°	22.7	23.0	23.4	23.7
92.5°	35.1	34.7	34.4	34.0
95°	61.7	61.7	61.7	61.7
97.5°	89.1	88.9	88.7	88.6
100°	119.1	119.5	119.8	120.2
102.5°	153.1	153.0	152.8	152.6
105°	187.1	187.5	187.8	188.2
107.5°	225.1	224.9	224.8	224.6
110°	262.8	262.4	262.1	261.7



TEST NUMBER: P831193

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	301.3	301.3	301.3	301.3
115°	337.4	337.2	337.0	336.9
117.5°	374.8	374.3	373.8	373.2
120°	413.0	412.7	412.3	412.0
122.5°	450.7	450.2	449.7	449.2
125°	488.4	487.7	487.0	486.3
127.5°	525.6	524.9	524.2	523.5
130°	563.5	562.3	561.1	559.9
132.5°	600.5	599.6	598.7	597.8
135°	638.4	638.1	637.7	637.4
137.5°	673.7	673.2	672.7	672.1
140°	709.8	708.6	707.4	706.2
142.5°	743.6	742.7	741.8	740.9
145°	776.3	775.6	774.9	774.2
147.5°	807.4	806.3	805.3	804.2
150°	835.8	834.8	833.7	832.7
152.5°	863.0	862.1	861.2	860.3
155°	888.6	887.3	886.1	884.9
157.5°	911.0	909.9	908.8	907.8
160°	932.0	931.3	930.6	929.9
162.5°	950.2	949.0	947.8	946.5
165°	966.0	964.8	963.6	962.4
167.5°	979.8	978.7	977.6	976.6
170°	990.6	989.3	988.1	986.9
172.5°	998.5	997.2	996.0	994.8
175°	1004.0	1002.8	1001.5	1000.3
177.5°	1007.2	1005.9	1004.7	1003.5
180°	1006.6	1006.6	1006.6	1006.6



TEST NUMBER: P831193

CATALOG NUMBER: S123DIP-S1165D1025U927-4F0-1E-UDD-G1

**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	16.08	16.99	16.95	17.88	19.00	18.32	19.23	19.19	20.12	21.24
	3H	17.73	18.55	18.62	19.45	20.59	19.74	20.56	20.63	21.46	22.61
	4H	18.31	19.08	19.21	19.99	21.14	20.20	20.97	21.10	21.87	23.03
	6H	18.68	19.40	19.60	20.31	21.48	20.48	21.19	21.39	22.10	23.27
	8H	18.78	19.46	19.70	20.39	21.56	20.54	21.22	21.46	22.14	23.31
	12H	18.83	19.47	19.75	20.40	21.59	20.56	21.21	21.49	22.13	23.32
4H	2H	16.66	17.43	17.57	18.34	19.50	18.49	19.26	19.39	20.16	21.32
	3H	18.49	19.14	19.41	20.07	21.24	20.11	20.75	21.03	21.69	22.86
	4H	19.19	19.78	20.12	20.71	21.91	20.70	21.28	21.62	22.21	23.41
	6H	19.67	20.18	20.61	21.13	22.33	21.10	21.61	22.04	22.56	23.76
	8H	19.81	20.28	20.75	21.23	22.44	21.22	21.69	22.16	22.63	23.85
	12H	19.88	20.31	20.84	21.27	22.49	21.26	21.69	22.22	22.65	23.87
8H	4H	19.46	19.94	20.41	20.88	22.10	20.80	21.28	21.75	22.22	23.44
	6H	20.06	20.45	21.02	21.43	22.64	21.31	21.70	22.28	22.69	23.90
	8H	20.26	20.61	21.24	21.59	22.82	21.49	21.83	22.47	22.81	24.04
	12H	20.39	20.69	21.37	21.66	22.94	21.59	21.90	22.57	22.87	24.14
12H	4H	19.47	19.89	20.43	20.86	22.07	20.78	21.21	21.74	22.17	23.39
	6H	20.11	20.45	21.08	21.43	22.66	21.32	21.67	22.30	22.65	23.88
	8H	20.34	20.65	21.32	21.62	22.89	21.53	21.83	22.51	22.80	24.08