

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: P831299

Luminaire Tested: S123DIP-S1165D805U850-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831299
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-17)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIP-S1165D805U850-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

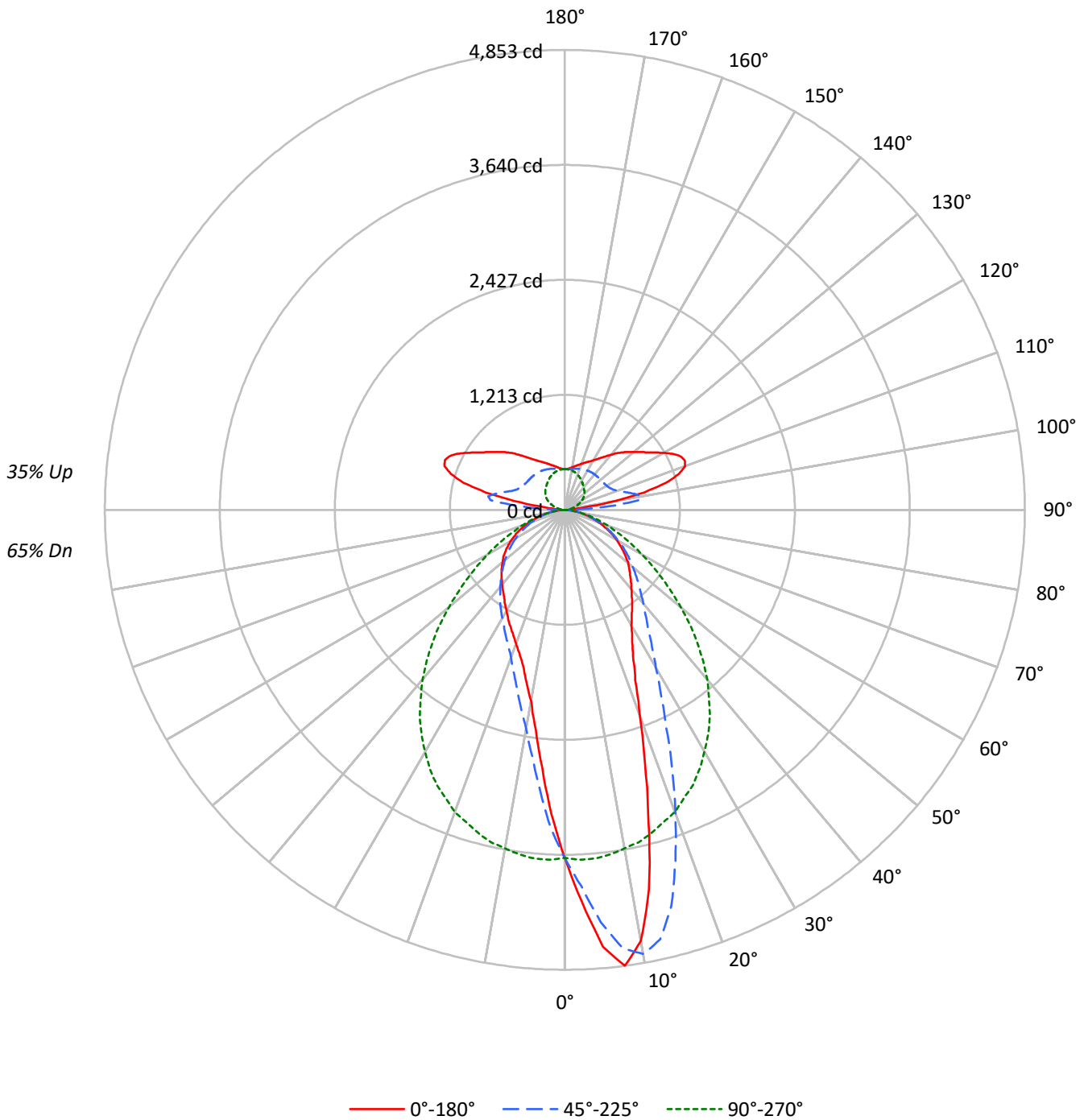
Lumens per Lamp: N/A
Luminaire Lumens: 9129.1 lumens
Efficiency: N/A
Efficacy: 145.4 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

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

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Luminous Intensity Polar Plot





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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.3	3.8
10°-20°	863.9	9.5
20°-30°	1022.9	11.2
30°-40°	1028.5	11.3
40°-50°	943.7	10.3
50°-60°	778.9	8.5
60°-70°	551.0	6.0
70°-80°	294.1	3.2
80°-90°	77.0	0.8
90°-100°	232.4	2.5
100°-110°	680.5	7.5
110°-120°	664.5	7.3
120°-130°	529.2	5.8
130°-140°	417.5	4.6
140°-150°	311.5	3.4
150°-160°	217.2	2.4
160°-170°	127.6	1.4
170°-180°	41.5	0.5
0°-30°	2234.1	24.5
0°-40°	3262.7	35.7
0°-60°	4985.2	54.6
0°-90°	5907.3	64.7
90°-120°	1577.4	17.3
90°-150°	2835.6	31.1
90°-180°	3222.0	35.3
0°-180°	9129.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3673	3673	3673	3673	3673	
5°	4628	4368	3692	2975	2734	441
15°	3412	4334	3532	1947	1699	943
25°	1701	2530	3199	1470	1358	803
35°	1234	1534	2668	1188	1116	775
45°	975	1099	1972	939	944	755
55°	748	794	1248	707	765	670
65°	499	521	684	483	544	496
75°	256	264	305	256	286	269
85°	56	63	60	64	65	63
90°	25	22	2	22	25	17
95°	101	514	30	514	101	163
105°	1103	697	101	697	1103	1100
115°	1341	533	178	533	1341	1308
125°	1058	498	247	498	1058	957
135°	858	491	290	491	858	665
145°	670	485	330	485	670	426
155°	556	469	375	469	556	259
165°	485	449	410	449	485	138
175°	436	431	427	431	436	42
180°	428	428	428	428	428	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3
2.5°	4140.3	4136.1	4131.8	4110.5	4089.2	4079.0	4068.7	4038.0	4007.4	3973.3	3939.2
5°	4627.8	4639.7	4651.7	4638.0	4624.4	4582.6	4540.9	4485.5	4430.1	4367.9	4305.7
7.5°	4852.8	4859.6	4866.5	4857.9	4849.4	4838.3	4827.2	4777.8	4728.4	4664.5	4600.5
10°	4619.3	4634.6	4650.0	4683.2	4716.5	4754.0	4791.5	4784.6	4777.8	4759.1	4740.3
12.5°	4106.2	4125.0	4143.7	4210.2	4276.7	4361.9	4447.1	4520.4	4593.7	4644.9	4696.0
15°	3412.5	3464.5	3516.5	3577.0	3637.5	3762.8	3888.0	4042.3	4196.6	4333.8	4471.0
17.5°	2810.8	2830.4	2850.0	2914.8	2979.5	3137.2	3294.9	3473.0	3651.1	3878.7	4106.2
20°	2313.1	2331.0	2348.9	2434.1	2519.3	2642.9	2766.5	2966.7	3167.0	3411.6	3656.2
22.5°	1943.2	1971.3	1999.4	2047.1	2094.9	2213.3	2331.8	2509.9	2688.1	2958.2	3228.4
25°	1701.1	1721.6	1742.0	1771.0	1800.0	1894.6	1989.2	2135.8	2282.4	2530.4	2778.4
27.5°	1535.8	1544.3	1552.8	1581.8	1610.8	1672.2	1733.5	1859.6	1985.8	2196.3	2406.8
30°	1406.2	1412.2	1418.2	1443.7	1469.3	1511.1	1552.8	1644.0	1735.2	1921.0	2106.8
32.5°	1315.9	1320.2	1324.4	1344.0	1363.6	1393.5	1423.3	1489.8	1556.2	1709.7	1863.1
35°	1234.1	1236.6	1239.2	1253.7	1268.2	1290.3	1312.5	1362.8	1413.1	1534.1	1655.1
37.5°	1162.5	1165.9	1169.3	1177.8	1186.4	1206.0	1225.6	1265.6	1305.7	1398.6	1491.5
40°	1092.6	1098.6	1104.5	1110.5	1116.5	1132.7	1148.9	1179.5	1210.2	1286.9	1363.6
42.5°	1032.9	1038.9	1044.9	1047.4	1050.0	1059.4	1068.7	1096.9	1125.0	1182.1	1239.2
45°	975.0	977.6	980.1	982.7	985.2	992.9	1000.6	1025.3	1050.0	1099.4	1148.9
47.5°	922.2	922.2	922.2	923.9	925.6	932.4	939.2	957.1	975.0	1013.3	1051.7
50°	871.0	871.0	871.0	868.5	865.9	870.2	874.4	888.1	901.7	935.8	969.9
52.5°	809.7	809.7	809.7	810.5	811.4	811.4	811.4	823.3	835.2	865.9	896.6
55°	748.3	751.7	755.1	752.6	750.0	751.7	753.4	761.1	768.7	793.5	818.2
57.5°	686.9	688.6	690.3	689.5	688.6	689.5	690.3	697.2	704.0	722.7	741.5
60°	629.0	629.0	629.0	627.3	625.6	627.3	629.0	632.4	635.8	652.8	669.9
62.5°	564.2	565.1	565.9	566.8	567.6	565.9	564.2	568.5	572.7	585.5	598.3
65°	499.4	500.3	501.1	503.7	506.2	504.5	502.8	507.1	511.4	520.7	530.1
67.5°	441.5	439.8	438.1	438.9	439.8	442.3	444.9	445.7	446.6	456.8	467.0
70°	373.3	375.0	376.7	375.9	375.0	375.9	376.7	379.3	381.8	389.5	397.2
72.5°	311.9	312.8	313.6	313.6	313.6	315.3	317.0	319.6	322.2	326.4	330.7
75°	255.7	255.7	255.7	257.4	259.1	259.9	260.8	260.8	260.8	264.2	267.6
77.5°	194.3	198.6	202.8	202.0	201.1	202.8	204.5	207.1	209.7	211.4	213.1
80°	141.5	141.5	141.5	142.3	143.2	145.7	148.3	150.0	151.7	155.1	158.5
82.5°	90.3	91.2	92.0	94.6	97.2	98.9	100.6	103.1	105.7	105.7	105.7
85°	56.2	54.5	52.8	54.5	56.2	58.0	59.7	60.5	61.4	63.1	64.8
87.5°	27.3	27.3	27.3	27.3	27.3	28.1	29.0	29.0	29.0	29.0	29.0
90°	25.1	26.0	25.1	24.3	25.1	23.4	22.5	21.7	20.8	21.7	19.1
92.5°	46.0	47.7	46.8	50.3	52.0	58.1	66.8	85.8	120.5	161.3	178.6
95°	100.6	104.0	110.1	117.9	134.4	165.6	211.6	312.1	417.0	514.2	457.8
97.5°	206.4	215.9	236.7	269.6	327.7	426.6	541.0	717.0	817.6	790.7	590.5
100°	543.6	542.8	576.6	639.9	727.4	850.6	952.0	1022.2	991.9	821.1	554.9
102.5°	861.0	886.1	913.0	959.8	1023.1	1089.9	1138.4	1123.7	1000.6	764.7	502.9
105°	1102.9	1107.2	1135.0	1167.9	1207.8	1230.3	1213.9	1127.1	945.9	697.1	462.1
107.5°	1260.7	1270.2	1281.5	1297.1	1302.3	1278.9	1211.3	1075.1	867.9	637.3	432.7
110°	1350.8	1352.6	1354.3	1347.4	1323.1	1262.4	1153.2	993.6	795.1	587.9	417.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1369.1	1368.2	1359.5	1334.4	1285.0	1202.6	1076.9	913.0	731.8	554.9	408.4
115°	1341.3	1337.0	1319.6	1281.5	1216.5	1121.9	994.5	843.6	683.2	533.2	407.5
117.5°	1280.6	1274.5	1248.5	1206.1	1138.4	1040.4	923.4	789.9	651.1	518.5	408.4
120°	1200.8	1195.6	1174.8	1126.3	1057.8	970.2	866.2	749.1	626.9	509.0	411.8
122.5°	1126.3	1119.3	1095.9	1053.5	994.5	914.7	820.2	717.0	606.9	502.9	417.9
125°	1057.8	1051.7	1030.0	991.9	936.4	867.0	783.8	689.3	590.5	497.7	424.0
127.5°	998.8	993.6	973.7	940.7	890.4	826.3	750.0	664.2	574.8	495.1	430.9
130°	950.3	943.3	925.1	893.9	848.0	789.0	718.8	640.7	562.7	492.5	437.9
132.5°	902.6	898.3	882.6	851.4	808.9	753.5	689.3	619.1	551.4	491.6	443.1
135°	857.5	851.4	835.8	809.8	767.3	717.9	661.6	600.0	541.9	490.7	448.3
137.5°	809.8	804.6	791.6	764.7	728.3	684.1	633.8	581.8	533.2	489.0	451.7
140°	759.5	760.4	746.5	722.2	689.3	652.0	610.4	566.2	525.4	488.1	455.2
142.5°	712.7	713.6	701.4	680.6	653.7	622.5	587.9	551.4	518.5	486.4	457.8
145°	670.2	668.5	661.6	643.3	621.7	596.5	568.8	540.2	512.4	484.7	458.7
147.5°	633.8	632.9	626.0	613.0	595.7	577.4	554.0	530.6	506.4	482.1	458.7
150°	602.6	602.6	597.4	587.9	574.8	558.4	540.2	520.2	500.3	478.6	458.7
152.5°	576.6	576.6	574.0	565.3	555.8	542.8	527.2	510.7	493.3	474.3	456.1
155°	555.8	554.9	553.2	546.2	538.4	528.0	515.0	501.1	486.4	469.1	454.3
157.5°	535.8	535.8	534.1	528.9	522.0	513.3	502.9	490.7	478.6	464.7	451.7
160°	516.8	517.6	517.6	512.4	506.4	500.3	491.6	482.1	470.8	459.5	450.0
162.5°	499.4	500.3	500.3	495.9	492.5	487.3	479.5	471.7	463.0	454.3	446.5
165°	484.7	484.7	485.5	482.1	478.6	474.3	468.2	463.0	456.1	449.1	443.1
167.5°	469.9	469.9	470.8	468.2	466.5	463.0	459.5	455.2	449.1	443.9	439.6
170°	456.9	456.9	457.8	456.1	455.2	453.5	450.0	447.4	443.1	438.7	436.1
172.5°	444.8	445.7	447.4	445.7	445.7	444.8	442.2	440.5	437.0	434.4	433.5
175°	436.1	437.0	437.9	437.0	437.0	437.0	435.3	434.4	432.7	430.9	430.9
177.5°	430.1	430.1	431.8	430.9	431.8	431.8	430.9	430.1	429.2	428.3	429.2
180°	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3
2.5°	3929.0	3918.7	3881.2	3843.7	3801.1	3758.5	3727.0	3695.4	3648.6	3601.7	3563.3
5°	4257.9	4210.2	4130.9	4051.7	3944.3	3836.9	3764.5	3692.0	3594.9	3497.7	3420.2
7.5°	4518.7	4436.9	4326.1	4215.3	4074.7	3934.1	3801.1	3668.2	3519.9	3371.6	3250.6
10°	4684.9	4629.5	4501.7	4373.8	4185.5	3997.1	3811.3	3625.6	3434.6	3243.7	3083.5
12.5°	4701.1	4706.2	4588.6	4471.0	4257.9	4044.9	3819.0	3593.2	3352.8	3112.5	2925.8
15°	4558.8	4646.6	4581.8	4517.0	4302.3	4087.5	3809.6	3531.8	3254.8	2977.8	2762.2
17.5°	4294.6	4482.9	4492.3	4501.7	4286.9	4072.1	3764.5	3456.8	3143.2	2829.5	2602.8
20°	3934.1	4211.9	4307.4	4402.8	4228.1	4053.4	3722.7	3392.0	3040.9	2689.8	2452.0
22.5°	3565.9	3903.4	4078.1	4252.8	4123.3	3993.7	3641.7	3289.8	2919.0	2548.3	2307.1
25°	3146.6	3514.8	3783.2	4051.7	3972.4	3893.2	3546.3	3199.4	2804.8	2410.2	2163.9
27.5°	2781.0	3155.1	3479.0	3802.8	3785.8	3768.7	3424.4	3080.1	2676.1	2272.1	2034.4
30°	2455.4	2804.0	3166.2	3528.4	3570.2	3611.9	3279.5	2947.1	2542.3	2137.5	1908.2
32.5°	2167.3	2471.6	2860.2	3248.8	3330.7	3412.5	3112.5	2812.5	2411.9	2011.4	1790.6
35°	1931.2	2207.4	2596.0	2984.6	3086.9	3189.2	2928.4	2667.6	2277.3	1886.9	1676.4
37.5°	1722.4	1953.4	2332.7	2711.9	2837.2	2962.5	2729.0	2495.4	2129.8	1764.2	1570.7
40°	1549.4	1735.2	2083.8	2432.4	2577.3	2722.1	2529.5	2336.9	1990.0	1643.2	1465.0
42.5°	1404.5	1569.9	1886.1	2202.3	2341.2	2480.1	2317.3	2154.5	1846.0	1537.5	1374.7
45°	1281.0	1413.1	1700.3	1987.5	2119.6	2251.7	2111.9	1972.1	1700.3	1428.4	1276.7
47.5°	1165.1	1278.4	1523.9	1769.3	1886.9	2004.5	1895.4	1786.4	1556.2	1326.1	1188.9
50°	1061.1	1152.3	1367.0	1581.8	1684.1	1786.4	1690.0	1593.7	1404.5	1215.3	1096.0
52.5°	970.7	1044.9	1224.7	1404.5	1492.3	1580.1	1497.4	1414.8	1264.8	1114.8	1010.8
55°	881.2	944.3	1100.3	1256.2	1315.9	1375.6	1311.6	1247.7	1126.7	1005.7	917.9
57.5°	797.7	854.0	981.8	1109.7	1155.7	1201.7	1143.7	1085.8	994.6	903.4	830.1
60°	715.9	761.9	868.5	975.0	1003.1	1031.2	984.4	937.5	873.6	809.7	744.0
62.5°	640.1	681.8	761.1	840.3	859.1	877.8	842.0	806.2	757.7	709.1	658.0
65°	561.6	593.2	658.0	722.7	734.7	746.6	715.1	683.5	646.9	610.2	572.7
67.5°	489.2	511.4	564.2	617.0	617.9	618.7	593.2	567.6	547.2	526.7	496.9
70°	418.5	439.8	474.7	509.7	510.5	511.4	490.9	470.5	455.1	439.8	417.6
72.5°	346.0	361.4	387.8	414.2	412.5	410.8	398.0	385.2	373.3	361.4	345.2
75°	280.4	293.2	311.1	329.0	323.9	318.7	311.9	305.1	294.9	284.7	274.4
77.5°	220.7	228.4	238.6	248.9	245.5	242.0	236.1	230.1	222.4	214.8	210.5
80°	161.9	165.3	172.2	179.0	177.3	175.6	168.7	161.9	160.2	158.5	152.6
82.5°	109.9	114.2	115.9	117.6	116.8	115.9	110.8	105.7	104.0	102.3	101.4
85°	65.6	66.5	67.3	68.2	65.6	63.1	61.4	59.7	59.7	59.7	58.8
87.5°	29.8	30.7	30.7	30.7	29.8	29.0	27.3	25.6	26.4	27.3	27.3
90°	16.5	13.9	11.3	9.5	7.8	5.2	3.5	1.7	3.5	5.2	7.8
92.5°	133.5	87.6	59.8	44.2	35.5	27.7	19.1	13.0	19.1	27.7	35.5
95°	315.6	186.4	112.7	78.9	56.4	41.6	32.1	29.5	32.1	41.6	56.4
97.5°	351.2	201.2	128.3	91.0	68.5	55.5	47.7	46.8	47.7	55.5	68.5
100°	326.9	198.6	137.9	104.0	83.2	71.1	65.0	64.2	65.0	71.1	83.2
102.5°	306.1	202.0	149.1	118.8	100.6	89.3	84.1	82.4	84.1	89.3	100.6
105°	298.3	209.0	162.1	135.3	118.8	108.4	103.2	100.6	103.2	108.4	118.8
107.5°	296.5	220.2	178.6	153.5	137.9	127.5	122.3	119.7	122.3	127.5	137.9
110°	300.9	235.0	196.0	171.7	156.9	147.4	143.1	140.5	143.1	147.4	156.9



TEST NUMBER: P831299

CATALOG NUMBER: S123DIP-S1165D805U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	309.5	249.7	214.2	190.7	176.0	166.5	162.1	159.5	162.1	166.5	176.0
115°	319.1	266.2	233.2	209.8	195.1	186.4	181.2	177.7	181.2	186.4	195.1
117.5°	331.2	283.5	250.6	228.9	212.4	204.6	200.3	196.0	200.3	204.6	212.4
120°	345.1	300.0	268.8	247.1	230.6	222.0	217.6	215.0	217.6	222.0	230.6
122.5°	358.1	317.3	287.0	263.6	248.0	238.4	234.1	231.5	234.1	238.4	248.0
125°	372.0	333.8	303.5	280.1	263.6	254.0	248.8	247.1	248.8	254.0	263.6
127.5°	383.2	348.5	319.1	295.7	277.5	267.9	261.8	259.2	261.8	267.9	277.5
130°	394.5	361.6	332.9	309.5	291.3	280.9	273.1	270.5	273.1	280.9	291.3
132.5°	404.9	372.8	345.1	322.5	304.3	291.3	282.7	279.2	282.7	291.3	304.3
135°	413.6	384.1	357.2	333.8	315.6	302.6	293.1	289.6	293.1	302.6	315.6
137.5°	420.5	391.9	365.9	344.2	326.0	312.1	302.6	299.1	302.6	312.1	326.0
140°	425.7	399.7	374.6	352.9	335.5	321.7	313.0	308.7	313.0	321.7	335.5
142.5°	430.9	405.8	381.5	361.6	344.2	332.1	322.5	319.1	322.5	332.1	344.2
145°	434.4	411.0	388.4	368.5	353.8	340.7	332.9	330.3	332.9	340.7	353.8
147.5°	437.0	415.3	394.5	377.2	362.4	351.2	343.3	341.6	343.3	351.2	362.4
150°	437.9	419.6	399.7	384.1	372.0	360.7	353.8	352.9	353.8	360.7	372.0
152.5°	439.6	422.2	405.8	391.0	380.6	371.1	364.2	364.2	364.2	371.1	380.6
155°	439.6	425.7	411.0	398.8	389.3	380.6	375.4	375.4	375.4	380.6	389.3
157.5°	440.5	427.4	415.3	405.8	397.1	389.3	385.0	384.1	385.0	389.3	397.1
160°	440.5	430.1	419.6	411.0	404.9	398.0	394.5	394.5	394.5	398.0	404.9
162.5°	439.6	430.9	422.2	415.3	410.1	404.9	402.3	402.3	402.3	404.9	410.1
165°	437.9	431.8	424.8	418.8	415.3	411.0	409.2	410.1	409.2	411.0	415.3
167.5°	437.0	431.8	426.6	422.2	419.6	416.2	415.3	416.2	415.3	416.2	419.6
170°	434.4	430.9	426.6	424.8	423.1	420.5	419.6	421.4	419.6	420.5	423.1
172.5°	433.5	430.9	427.4	426.6	425.7	424.0	424.0	424.8	424.0	424.0	425.7
175°	431.8	430.1	428.3	427.4	427.4	425.7	426.6	427.4	426.6	425.7	427.4
177.5°	430.9	429.2	428.3	428.3	428.3	427.4	428.3	429.2	428.3	427.4	428.3
180°	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3



TEST NUMBER: P831299

CATALOG NUMBER: S123DIP-S1165D805U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3	3673.3
2.5°	3525.0	3491.7	3458.5	3432.9	3407.4	3363.9	3320.4	3310.2	3300.0	3285.5	3271.0
5°	3342.6	3260.8	3179.0	3105.7	3032.4	2975.3	2918.2	2880.7	2843.2	2815.9	2788.6
7.5°	3129.5	3006.8	2884.1	2797.1	2710.2	2627.5	2544.9	2518.5	2492.0	2456.2	2420.4
10°	2923.3	2787.8	2652.3	2538.9	2425.6	2344.6	2263.6	2231.2	2198.9	2153.7	2108.5
12.5°	2739.2	2590.9	2442.6	2328.4	2214.2	2135.8	2057.4	2010.5	1963.6	1938.1	1912.5
15°	2546.6	2388.1	2229.5	2123.9	2018.2	1947.4	1876.7	1835.8	1794.9	1770.2	1745.4
17.5°	2376.1	2219.3	2062.5	1961.1	1859.6	1794.9	1730.1	1694.3	1658.5	1639.8	1621.0
20°	2214.2	2060.8	1907.4	1808.5	1709.7	1656.8	1604.0	1581.0	1557.9	1542.6	1527.3
22.5°	2065.9	1915.0	1764.2	1679.8	1595.4	1552.8	1510.2	1494.0	1477.8	1465.0	1452.3
25°	1917.6	1782.9	1648.3	1576.7	1505.1	1470.2	1435.2	1419.0	1402.8	1390.0	1377.3
27.5°	1796.6	1667.9	1539.2	1477.8	1416.5	1389.2	1361.9	1349.1	1336.4	1324.4	1312.5
30°	1679.0	1563.9	1448.9	1396.0	1343.2	1318.5	1293.7	1281.0	1268.2	1257.1	1246.0
32.5°	1569.9	1471.0	1372.2	1323.6	1275.0	1254.5	1234.1	1218.7	1203.4	1194.9	1186.4
35°	1465.9	1377.3	1288.6	1248.6	1208.5	1188.1	1167.6	1154.8	1142.0	1135.2	1128.4
37.5°	1377.3	1298.0	1218.7	1180.4	1142.0	1122.4	1102.8	1091.8	1080.7	1078.1	1075.6
40°	1286.9	1218.7	1150.6	1113.1	1075.6	1058.5	1041.5	1034.7	1027.8	1026.1	1024.4
42.5°	1211.9	1145.4	1079.0	1044.9	1010.8	996.3	981.8	978.4	975.0	977.6	980.1
45°	1125.0	1069.6	1014.2	982.7	951.1	939.2	927.3	924.7	922.2	927.3	932.4
47.5°	1051.7	1000.6	949.4	919.6	889.8	881.2	872.7	871.9	871.0	877.8	884.7
50°	976.7	927.3	877.8	854.0	830.1	822.4	814.8	817.3	819.9	831.0	842.0
52.5°	906.8	860.8	814.8	792.6	770.5	765.3	760.2	766.2	772.2	784.1	796.0
55°	830.1	788.3	746.6	729.5	712.5	707.4	702.3	714.2	726.1	737.2	748.3
57.5°	756.8	720.2	683.5	668.2	652.8	652.0	651.1	662.2	673.3	685.2	697.2
60°	678.4	647.7	617.0	605.1	593.2	594.9	596.6	609.4	622.2	631.5	640.9
62.5°	606.8	581.2	555.7	544.6	533.5	537.8	542.0	554.8	567.6	578.7	589.8
65°	535.2	513.9	492.6	484.9	477.3	483.2	489.2	500.3	511.4	519.0	526.7
67.5°	467.0	449.1	431.2	425.3	419.3	425.3	431.2	442.3	453.4	461.1	468.7
70°	395.5	381.0	366.5	362.2	358.0	364.8	371.6	381.0	390.3	398.0	405.7
72.5°	329.0	317.9	306.8	306.0	305.1	311.1	317.0	326.4	335.8	340.9	346.0
75°	264.2	258.2	252.3	251.4	250.6	256.5	262.5	267.6	272.7	277.0	281.2
77.5°	206.2	201.1	196.0	196.9	197.7	202.0	206.2	211.4	216.5	219.0	221.6
80°	146.6	144.9	143.2	144.9	146.6	150.0	153.4	156.8	160.2	161.9	163.6
82.5°	100.6	98.9	97.2	99.7	102.3	104.8	107.4	109.9	112.5	113.4	114.2
85°	58.0	60.5	63.1	63.1	63.1	63.9	64.8	65.6	66.5	65.6	64.8
87.5°	27.3	28.1	29.0	29.0	29.0	29.8	30.7	30.7	30.7	29.8	29.0
90°	9.5	11.3	13.9	16.5	19.1	21.7	20.8	21.7	22.5	23.4	25.1
92.5°	44.2	59.8	87.6	133.5	178.6	161.3	120.5	85.8	66.8	58.1	52.0
95°	78.9	112.7	186.4	315.6	457.8	514.2	417.0	312.1	211.6	165.6	134.4
97.5°	91.0	128.3	201.2	351.2	590.5	790.7	817.6	717.0	541.0	426.6	327.7
100°	104.0	137.9	198.6	326.9	554.9	821.1	991.9	1022.2	952.0	850.6	727.4
102.5°	118.8	149.1	202.0	306.1	502.9	764.7	1000.6	1123.7	1138.4	1089.9	1023.1
105°	135.3	162.1	209.0	298.3	462.1	697.1	945.9	1127.1	1213.9	1230.3	1207.8
107.5°	153.5	178.6	220.2	296.5	432.7	637.3	867.9	1075.1	1211.3	1278.9	1302.3
110°	171.7	196.0	235.0	300.9	417.0	587.9	795.1	993.6	1153.2	1262.4	1323.1



TEST NUMBER: P831299

CATALOG NUMBER: S123DIP-S1165D805U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	190.7	214.2	249.7	309.5	408.4	554.9	731.8	913.0	1076.9	1202.6	1285.0
115°	209.8	233.2	266.2	319.1	407.5	533.2	683.2	843.6	994.5	1121.9	1216.5
117.5°	228.9	250.6	283.5	331.2	408.4	518.5	651.1	789.9	923.4	1040.4	1138.4
120°	247.1	268.8	300.0	345.1	411.8	509.0	626.9	749.1	866.2	970.2	1057.8
122.5°	263.6	287.0	317.3	358.1	417.9	502.9	606.9	717.0	820.2	914.7	994.5
125°	280.1	303.5	333.8	372.0	424.0	497.7	590.5	689.3	783.8	867.0	936.4
127.5°	295.7	319.1	348.5	383.2	430.9	495.1	574.8	664.2	750.0	826.3	890.4
130°	309.5	332.9	361.6	394.5	437.9	492.5	562.7	640.7	718.8	789.0	848.0
132.5°	322.5	345.1	372.8	404.9	443.1	491.6	551.4	619.1	689.3	753.5	808.9
135°	333.8	357.2	384.1	413.6	448.3	490.7	541.9	600.0	661.6	717.9	767.3
137.5°	344.2	365.9	391.9	420.5	451.7	489.0	533.2	581.8	633.8	684.1	728.3
140°	352.9	374.6	399.7	425.7	455.2	488.1	525.4	566.2	610.4	652.0	689.3
142.5°	361.6	381.5	405.8	430.9	457.8	486.4	518.5	551.4	587.9	622.5	653.7
145°	368.5	388.4	411.0	434.4	458.7	484.7	512.4	540.2	568.8	596.5	621.7
147.5°	377.2	394.5	415.3	437.0	458.7	482.1	506.4	530.6	554.0	577.4	595.7
150°	384.1	399.7	419.6	437.9	458.7	478.6	500.3	520.2	540.2	558.4	574.8
152.5°	391.0	405.8	422.2	439.6	456.1	474.3	493.3	510.7	527.2	542.8	555.8
155°	398.8	411.0	425.7	439.6	454.3	469.1	486.4	501.1	515.0	528.0	538.4
157.5°	405.8	415.3	427.4	440.5	451.7	464.7	478.6	490.7	502.9	513.3	522.0
160°	411.0	419.6	430.1	440.5	450.0	459.5	470.8	482.1	491.6	500.3	506.4
162.5°	415.3	422.2	430.9	439.6	446.5	454.3	463.0	471.7	479.5	487.3	492.5
165°	418.8	424.8	431.8	437.9	443.1	449.1	456.1	463.0	468.2	474.3	478.6
167.5°	422.2	426.6	431.8	437.0	439.6	443.9	449.1	455.2	459.5	463.0	466.5
170°	424.8	426.6	430.9	434.4	436.1	438.7	443.1	447.4	450.0	453.5	455.2
172.5°	426.6	427.4	430.9	433.5	433.5	434.4	437.0	440.5	442.2	444.8	445.7
175°	427.4	428.3	430.1	431.8	430.9	430.9	432.7	434.4	435.3	437.0	437.0
177.5°	428.3	428.3	429.2	430.9	429.2	428.3	429.2	430.1	430.9	431.8	431.8
180°	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3



TEST NUMBER: P831299

CATALOG NUMBER: S123DIP-S1165D805U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3673.3	3673.3	3673.3	3673.3
2.5°	3265.0	3259.1	3235.2	3211.3
5°	2768.2	2747.7	2740.9	2734.1
7.5°	2418.7	2417.0	2381.2	2345.4
10°	2111.1	2113.6	2081.2	2048.9
12.5°	1891.2	1869.9	1867.3	1864.8
15°	1725.8	1706.2	1702.8	1699.4
17.5°	1609.1	1597.2	1593.7	1590.3
20°	1520.4	1513.6	1507.7	1501.7
22.5°	1443.7	1435.2	1430.1	1425.0
25°	1369.6	1361.9	1360.2	1358.5
27.5°	1303.1	1293.7	1293.7	1293.7
30°	1240.1	1234.1	1231.5	1229.0
32.5°	1181.2	1176.1	1176.1	1176.1
35°	1125.8	1123.3	1119.9	1116.5
37.5°	1075.6	1075.6	1073.9	1072.2
40°	1027.0	1029.5	1029.5	1029.5
42.5°	982.7	985.2	985.2	985.2
45°	936.6	940.9	942.6	944.3
47.5°	891.5	898.3	900.0	901.7
50°	847.2	852.3	853.1	854.0
52.5°	802.0	808.0	812.2	816.5
55°	754.3	760.2	762.8	765.3
57.5°	703.1	709.1	709.9	710.8
60°	646.9	652.8	654.5	656.2
62.5°	593.2	596.6	598.3	600.0
65°	531.8	536.9	540.3	543.7
67.5°	473.0	477.3	477.3	477.3
70°	407.4	409.1	411.6	414.2
72.5°	346.9	347.7	347.7	347.7
75°	283.0	284.7	285.5	286.4
77.5°	222.4	223.3	223.3	223.3
80°	162.8	161.9	161.9	161.9
82.5°	111.6	109.1	109.1	109.1
85°	63.9	63.1	63.9	64.8
87.5°	29.0	29.0	29.0	29.0
90°	24.3	25.1	26.0	25.1
92.5°	50.3	46.8	47.7	46.0
95°	117.9	110.1	104.0	100.6
97.5°	269.6	236.7	215.9	206.4
100°	639.9	576.6	542.8	543.6
102.5°	959.8	913.0	886.1	861.0
105°	1167.9	1135.0	1107.2	1102.9
107.5°	1297.1	1281.5	1270.2	1260.7
110°	1347.4	1354.3	1352.6	1350.8



TEST NUMBER: P831299

CATALOG NUMBER: S123DIP-S1165D805U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	1334.4	1359.5	1368.2	1369.1
115°	1281.5	1319.6	1337.0	1341.3
117.5°	1206.1	1248.5	1274.5	1280.6
120°	1126.3	1174.8	1195.6	1200.8
122.5°	1053.5	1095.9	1119.3	1126.3
125°	991.9	1030.0	1051.7	1057.8
127.5°	940.7	973.7	993.6	998.8
130°	893.9	925.1	943.3	950.3
132.5°	851.4	882.6	898.3	902.6
135°	809.8	835.8	851.4	857.5
137.5°	764.7	791.6	804.6	809.8
140°	722.2	746.5	760.4	759.5
142.5°	680.6	701.4	713.6	712.7
145°	643.3	661.6	668.5	670.2
147.5°	613.0	626.0	632.9	633.8
150°	587.9	597.4	602.6	602.6
152.5°	565.3	574.0	576.6	576.6
155°	546.2	553.2	554.9	555.8
157.5°	528.9	534.1	535.8	535.8
160°	512.4	517.6	517.6	516.8
162.5°	495.9	500.3	500.3	499.4
165°	482.1	485.5	484.7	484.7
167.5°	468.2	470.8	469.9	469.9
170°	456.1	457.8	456.9	456.9
172.5°	445.7	447.4	445.7	444.8
175°	437.0	437.9	437.0	436.1
177.5°	430.9	431.8	430.1	430.1
180°	428.3	428.3	428.3	428.3

TEST NUMBER: P831299

CATALOG NUMBER: S123DIP-S1165D805U850-4F0-1E-UDD-G4

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	17.62	18.58	18.45	19.42	20.47	19.86	20.82	20.68	21.66	22.71
	3H	19.27	20.13	20.12	20.99	22.06	21.29	22.15	22.13	23.00	24.08
	4H	19.86	20.67	20.71	21.53	22.61	21.74	22.55	22.60	23.41	24.50
	6H	20.23	20.98	21.10	21.85	22.95	22.02	22.77	22.89	23.64	24.74
	8H	20.33	21.04	21.21	21.93	23.03	22.09	22.80	22.97	23.69	24.78
	12H	20.38	21.06	21.26	21.94	23.06	22.11	22.79	22.99	23.67	24.79
4H	2H	18.21	19.02	19.07	19.88	20.96	20.03	20.84	20.89	21.70	22.79
	3H	20.04	20.72	20.92	21.61	22.71	21.66	22.33	22.53	23.23	24.33
	4H	20.75	21.36	21.63	22.25	23.38	22.25	22.86	23.13	23.75	24.88
	6H	21.23	21.76	22.13	22.67	23.80	22.66	23.19	23.56	24.10	25.23
	8H	21.36	21.86	22.27	22.77	23.91	22.77	23.26	23.67	24.17	25.32
	12H	21.44	21.88	22.36	22.81	23.96	22.82	23.26	23.74	24.19	25.34
8H	4H	21.02	21.51	21.92	22.42	23.57	22.36	22.85	23.26	23.76	24.91
	6H	21.61	22.02	22.54	22.97	24.11	22.87	23.27	23.79	24.22	25.37
	8H	21.82	22.18	22.76	23.12	24.28	23.05	23.41	23.98	24.35	25.51
	12H	21.95	22.26	22.89	23.20	24.41	23.15	23.47	24.09	24.40	25.62
12H	4H	21.02	21.47	21.95	22.40	23.55	22.34	22.78	23.26	23.71	24.86
	6H	21.66	22.02	22.60	22.97	24.13	22.88	23.24	23.82	24.18	25.34
	8H	21.90	22.22	22.84	23.15	24.37	23.08	23.40	24.03	24.34	25.55