

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: P831623

Luminaire Tested: S123DIP-S775D1195U850-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831623
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-S775D1195U850-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

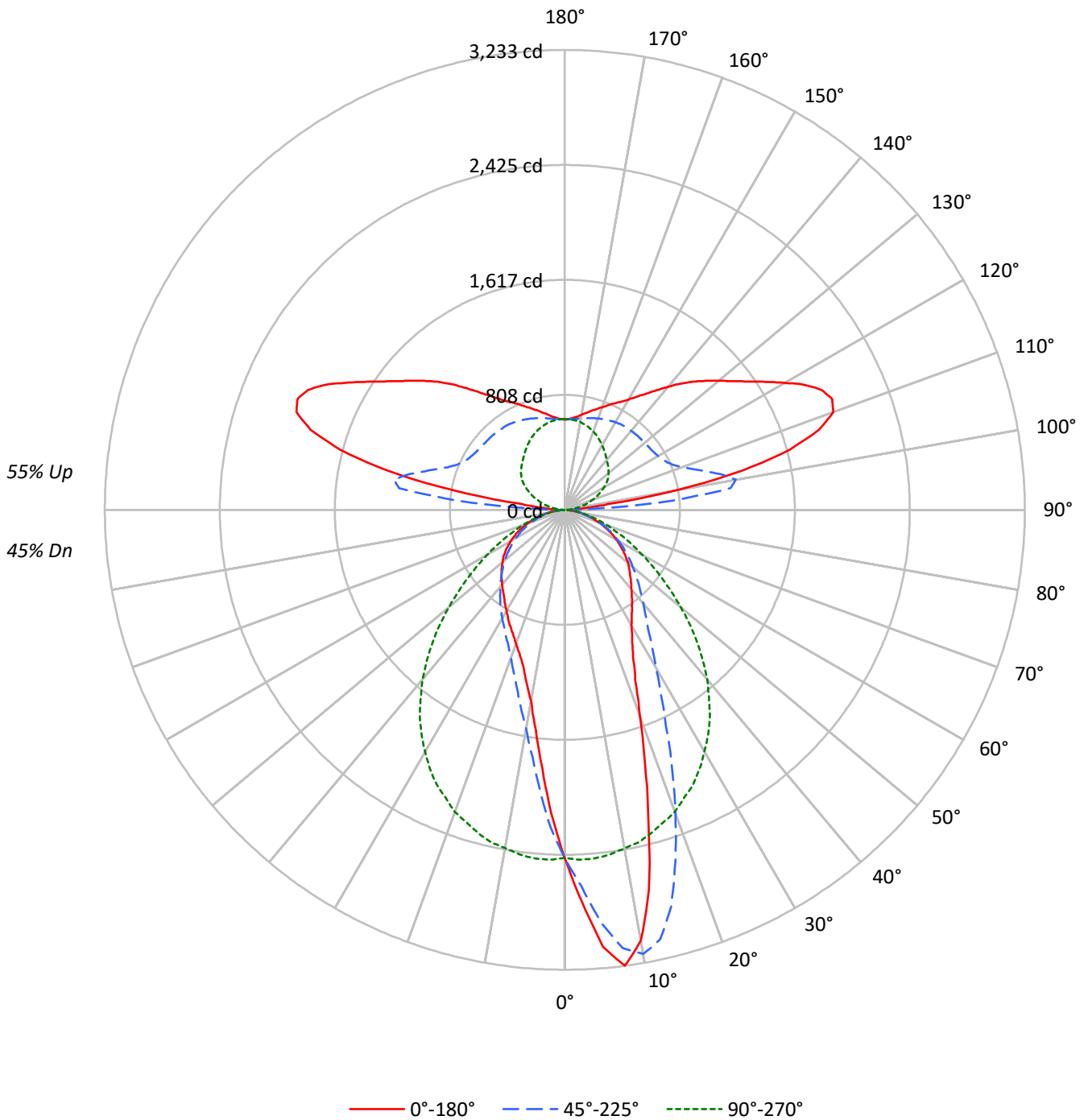
Lumens per Lamp: N/A
Luminaire Lumens: 8724.8 lumens
Efficiency: N/A
Efficacy: 153.3 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 56.9
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					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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45				
1	97	93	89	86	89	85	82	79	71	69	67	58	57	55	46	45	44	39				
2	89	82	76	71	81	75	70	66	63	59	56	52	49	47	41	40	38	33				
3	81	72	65	60	74	67	61	56	56	52	48	46	43	40	37	35	33	29				
4	75	64	57	51	68	60	53	48	50	45	41	42	38	35	34	31	29	25				
5	69	58	50	44	63	53	47	42	45	40	36	38	34	31	31	28	26	23				
6	64	52	44	39	58	48	41	36	41	36	32	34	30	27	28	25	23	20				
7	59	47	40	34	54	44	37	32	37	32	28	32	28	25	26	23	21	18				
8	55	43	36	31	50	40	33	29	34	29	25	29	25	22	24	21	19	17				
9	51	40	32	27	47	37	30	26	32	27	23	27	23	20	22	19	17	15				
10	48	36	29	25	44	34	28	24	29	24	21	25	21	18	21	18	16	14				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	26337	26337	26337	26337	26337
5°	33309	31437	26573	21414	19678
10°	33632	34649	26397	17070	14917
15°	25331	32169	26216	14456	12615
20°	17649	26032	25882	12641	11458
25°	13459	20018	25312	11631	10747
30°	11642	15904	24401	10916	10174
35°	10801	13428	23349	10399	9772
40°	10227	12045	21874	9908	9636
45°	9887	11149	19998	9523	9575
50°	9716	10438	17777	9173	9525
55°	9355	9918	15597	8843	9567
60°	9020	9362	13444	8531	9410
65°	8474	8835	11596	8199	9225
70°	7827	8164	9863	7648	8683
75°	7083	7320	8451	7107	7935
80°	5839	6403	6688	6192	6688
85°	4631	5187	4903	5261	5323

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 22832 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.3	2.7
10°-20°	575.5	6.6
20°-30°	681.4	7.8
30°-40°	685.1	7.9
40°-50°	628.6	7.2
50°-60°	518.8	5.9
60°-70°	367.0	4.2
70°-80°	195.9	2.2
80°-90°	53.2	0.6
90°-100°	345.4	4.0
100°-110°	1011.2	11.6
110°-120°	987.5	11.3
120°-130°	786.4	9.0
130°-140°	620.5	7.1
140°-150°	462.9	5.3
150°-160°	322.7	3.7
160°-170°	189.6	2.2
170°-180°	61.7	0.7
0°-30°	1488.2	17.1
0°-40°	2173.3	24.9
0°-60°	3320.7	38.1
0°-90°	3936.9	45.1
90°-120°	2344.1	26.9
90°-150°	4213.9	48.3
90°-180°	4788.0	54.9
0°-180°	8724.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2447	2447	2447	2447	2447	
5°	3083	2910	2459	1982	1821	294
15°	2273	2887	2353	1297	1132	628
25°	1133	1686	2131	979	905	535
35°	822	1022	1777	791	744	517
45°	650	732	1314	626	629	503
55°	498	528	831	471	510	446
65°	333	347	455	322	362	331
75°	170	176	203	171	191	179
85°	38	42	40	43	43	42
90°	37	32	3	32	37	22
95°	150	764	44	764	150	243
105°	1639	1036	150	1036	1639	1635
115°	1993	792	264	792	1993	1944
125°	1572	740	367	740	1572	1423
135°	1274	729	430	729	1274	988
145°	996	720	491	720	996	632
155°	826	697	558	697	826	385
165°	720	667	610	667	720	206
175°	648	640	635	640	648	63
180°	636	636	636	636	636	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8
2.5°	2758.0	2755.1	2752.3	2738.1	2723.9	2717.1	2710.3	2689.8	2669.4	2646.7	2624.0
5°	3082.7	3090.6	3098.6	3089.5	3080.4	3052.6	3024.8	2987.9	2951.0	2909.5	2868.1
7.5°	3232.6	3237.1	3241.6	3236.0	3230.3	3222.9	3215.5	3182.6	3149.7	3107.1	3064.5
10°	3077.0	3087.2	3097.4	3119.6	3141.7	3166.7	3191.7	3187.1	3182.6	3170.1	3157.6
12.5°	2735.2	2747.7	2760.2	2804.5	2848.8	2905.6	2962.3	3011.2	3060.0	3094.0	3128.1
15°	2273.1	2307.8	2342.4	2382.7	2423.0	2506.5	2589.9	2692.7	2795.4	2886.8	2978.2
17.5°	1872.3	1885.4	1898.4	1941.6	1984.7	2089.8	2194.8	2313.4	2432.1	2583.7	2735.2
20°	1540.8	1552.7	1564.6	1621.4	1678.2	1760.5	1842.8	1976.2	2109.6	2272.6	2435.5
22.5°	1294.4	1313.1	1331.9	1363.6	1395.4	1474.4	1553.3	1671.9	1790.6	1970.5	2150.5
25°	1133.2	1146.8	1160.4	1179.7	1199.0	1262.0	1325.0	1422.7	1520.3	1685.5	1850.7
27.5°	1023.0	1028.7	1034.4	1053.7	1073.0	1113.9	1154.7	1238.8	1322.8	1463.0	1603.2
30°	936.7	940.7	944.7	961.7	978.7	1006.6	1034.4	1095.1	1155.9	1279.6	1403.4
32.5°	876.5	879.4	882.2	895.3	908.3	928.2	948.1	992.4	1036.6	1138.8	1241.0
35°	822.0	823.8	825.5	835.1	844.8	859.5	874.3	907.8	941.3	1021.9	1102.5
37.5°	774.4	776.6	778.9	784.6	790.3	803.3	816.4	843.1	869.7	931.6	993.5
40°	727.8	731.8	735.8	739.7	743.7	754.5	765.3	785.7	806.2	857.2	908.3
42.5°	688.1	692.0	696.0	697.7	699.4	705.7	711.9	730.6	749.4	787.4	825.5
45°	649.5	651.2	652.9	654.6	656.3	661.4	666.5	683.0	699.4	732.4	765.3
47.5°	614.3	614.3	614.3	615.4	616.5	621.1	625.6	637.5	649.5	675.0	700.6
50°	580.2	580.2	580.2	578.5	576.8	579.6	582.5	591.6	600.6	623.3	646.1
52.5°	539.3	539.3	539.3	539.9	540.5	540.5	540.5	548.4	556.4	576.8	597.2
55°	498.5	500.7	503.0	501.3	499.6	500.7	501.9	507.0	512.1	528.5	545.0
57.5°	457.6	458.7	459.8	459.3	458.7	459.3	459.8	464.4	468.9	481.4	493.9
60°	419.0	419.0	419.0	417.8	416.7	417.8	419.0	421.2	423.5	434.9	446.2
62.5°	375.8	376.4	377.0	377.5	378.1	377.0	375.8	378.7	381.5	390.0	398.5
65°	332.7	333.2	333.8	335.5	337.2	336.1	335.0	337.8	340.6	346.9	353.1
67.5°	294.1	292.9	291.8	292.4	292.9	294.6	296.3	296.9	297.5	304.3	311.1
70°	248.7	249.8	250.9	250.4	249.8	250.4	250.9	252.6	254.3	259.4	264.6
72.5°	207.8	208.4	208.9	208.9	208.9	210.1	211.2	212.9	214.6	217.4	220.3
75°	170.3	170.3	170.3	171.4	172.6	173.2	173.7	173.7	173.7	176.0	178.3
77.5°	129.4	132.3	135.1	134.5	134.0	135.1	136.3	138.0	139.7	140.8	141.9
80°	94.2	94.2	94.2	94.8	95.4	97.1	98.8	99.9	101.1	103.3	105.6
82.5°	60.2	60.7	61.3	63.0	64.7	65.9	67.0	68.7	70.4	70.4	70.4
85°	37.5	36.3	35.2	36.3	37.5	38.6	39.7	40.3	40.9	42.0	43.1
87.5°	18.2	18.2	18.2	18.2	18.2	18.7	19.3	19.3	19.3	19.3	19.3
90°	37.4	38.7	37.4	36.1	37.4	34.8	33.5	32.2	30.9	32.2	28.3
92.5°	68.3	70.9	69.6	74.7	77.3	86.3	99.2	127.6	179.1	239.7	265.4
95°	149.5	154.6	163.6	175.2	199.7	246.1	314.4	463.9	619.8	764.1	680.3
97.5°	306.7	320.8	351.8	400.7	487.0	633.9	804.0	1065.6	1215.0	1175.1	877.5
100°	807.9	806.6	856.8	950.9	1081.0	1264.0	1414.8	1519.1	1474.0	1220.2	824.6
102.5°	1279.5	1316.8	1356.8	1426.4	1520.4	1619.6	1691.8	1669.9	1486.9	1136.4	747.3
105°	1639.0	1645.4	1686.6	1735.6	1794.9	1828.4	1803.9	1675.0	1405.7	1035.9	686.8
107.5°	1873.5	1887.6	1904.4	1927.6	1935.3	1900.5	1800.0	1597.7	1289.8	947.0	643.0
110°	2007.5	2010.0	2012.6	2002.3	1966.2	1876.0	1713.7	1476.6	1181.5	873.6	619.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	2034.5	2033.2	2020.4	1983.0	1909.5	1787.1	1600.3	1356.8	1087.5	824.6	606.9
115°	1993.3	1986.9	1961.1	1904.4	1807.8	1667.3	1477.9	1253.7	1015.3	792.4	605.6
117.5°	1903.1	1894.1	1855.4	1792.3	1691.8	1546.2	1372.2	1173.8	967.7	770.5	606.9
120°	1784.6	1776.8	1745.9	1673.7	1572.0	1441.8	1287.2	1113.3	931.6	756.3	612.0
122.5°	1673.7	1663.4	1628.7	1565.5	1477.9	1359.4	1218.9	1065.6	901.9	747.3	621.1
125°	1572.0	1562.9	1530.7	1474.0	1391.6	1288.5	1164.8	1024.3	877.5	739.6	630.1
127.5°	1484.3	1476.6	1447.0	1398.0	1323.3	1227.9	1114.5	987.0	854.3	735.7	640.4
130°	1412.2	1401.9	1374.8	1328.4	1260.1	1172.5	1068.2	952.2	836.2	731.9	650.7
132.5°	1341.3	1334.9	1311.7	1265.3	1202.2	1119.7	1024.3	920.0	819.5	730.6	658.4
135°	1274.3	1265.3	1242.1	1203.4	1140.3	1066.9	983.1	891.6	805.3	729.3	666.1
137.5°	1203.4	1195.7	1176.4	1136.4	1082.3	1016.6	941.9	864.6	792.4	726.7	671.3
140°	1128.7	1130.0	1109.4	1073.3	1024.3	968.9	907.1	841.4	780.8	725.4	676.5
142.5°	1059.1	1060.4	1042.4	1011.5	971.5	925.1	873.6	819.5	770.5	722.8	680.3
145°	996.0	993.4	983.1	956.1	923.8	886.5	845.2	802.7	761.5	720.3	681.6
147.5°	941.9	940.6	930.3	911.0	885.2	858.1	823.3	788.6	752.5	716.4	681.6
150°	895.5	895.5	887.8	873.6	854.3	829.8	802.7	773.1	743.5	711.2	681.6
152.5°	856.8	856.8	853.0	840.1	825.9	806.6	783.4	758.9	733.2	704.8	677.7
155°	825.9	824.6	822.1	811.7	800.2	784.7	765.4	744.7	722.8	697.1	675.2
157.5°	796.3	796.3	793.7	786.0	775.7	762.8	747.3	729.3	711.2	690.6	671.3
160°	767.9	769.2	769.2	761.5	752.5	743.5	730.6	716.4	699.6	682.9	668.7
162.5°	742.2	743.5	743.5	737.0	731.9	724.1	712.5	700.9	688.1	675.2	663.6
165°	720.3	720.3	721.6	716.4	711.2	704.8	695.8	688.1	677.7	667.4	658.4
167.5°	698.4	698.4	699.6	695.8	693.2	688.1	682.9	676.5	667.4	659.7	653.3
170°	679.0	679.0	680.3	677.7	676.5	673.9	668.7	664.9	658.4	652.0	648.1
172.5°	661.0	662.3	664.9	662.3	662.3	661.0	657.1	654.6	649.4	645.5	644.2
175°	648.1	649.4	650.7	649.4	649.4	649.4	646.8	645.5	643.0	640.4	640.4
177.5°	639.1	639.1	641.7	640.4	641.7	641.7	640.4	639.1	637.8	636.5	637.8
180°	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8
2.5°	2617.2	2610.3	2585.4	2560.4	2532.0	2503.6	2482.6	2461.6	2430.4	2399.2	2373.6
5°	2836.3	2804.5	2751.7	2698.9	2627.4	2555.8	2507.6	2459.3	2394.6	2329.9	2278.2
7.5°	3010.0	2955.5	2881.7	2807.9	2714.2	2620.6	2532.0	2443.4	2344.7	2245.9	2165.3
10°	3120.7	3083.8	2998.7	2913.5	2788.0	2662.6	2538.8	2415.1	2287.9	2160.7	2054.0
12.5°	3131.5	3134.9	3056.6	2978.2	2836.3	2694.4	2543.9	2393.5	2233.4	2073.3	1949.0
15°	3036.7	3095.2	3052.0	3008.9	2865.8	2722.8	2537.7	2352.6	2168.1	1983.6	1840.0
17.5°	2860.7	2986.2	2992.4	2998.7	2855.6	2712.5	2507.6	2302.6	2093.7	1884.8	1733.8
20°	2620.6	2805.6	2869.2	2932.8	2816.4	2700.0	2479.8	2259.5	2025.6	1791.7	1633.3
22.5°	2375.3	2600.1	2716.5	2832.9	2746.6	2660.3	2425.8	2191.4	1944.4	1697.5	1536.8
25°	2096.0	2341.3	2520.1	2698.9	2646.1	2593.3	2362.3	2131.2	1868.3	1605.5	1441.4
27.5°	1852.4	2101.7	2317.4	2533.1	2521.8	2510.4	2281.1	2051.7	1782.6	1513.5	1355.1
30°	1635.6	1867.8	2109.1	2350.3	2378.2	2406.0	2184.6	1963.2	1693.5	1423.8	1271.1
32.5°	1443.7	1646.4	1905.2	2164.1	2218.6	2273.1	2073.3	1873.5	1606.6	1339.8	1192.8
35°	1286.4	1470.4	1729.3	1988.1	2056.3	2124.4	1950.7	1776.9	1516.9	1256.9	1116.7
37.5°	1147.3	1301.2	1553.8	1806.5	1889.9	1973.4	1817.8	1662.3	1418.7	1175.2	1046.3
40°	1032.1	1155.9	1388.1	1620.3	1716.8	1813.3	1685.0	1556.7	1325.6	1094.6	975.9
42.5°	935.6	1045.7	1256.4	1467.0	1559.5	1652.0	1543.6	1435.2	1229.7	1024.2	915.7
45°	853.3	941.3	1132.6	1323.9	1411.9	1499.9	1406.8	1313.7	1132.6	951.5	850.4
47.5°	776.1	851.6	1015.1	1178.6	1256.9	1335.3	1262.6	1189.9	1036.6	883.4	792.0
50°	706.8	767.5	910.6	1053.7	1121.8	1189.9	1125.8	1061.6	935.6	809.6	730.1
52.5°	646.6	696.0	815.8	935.6	994.1	1052.5	997.5	942.4	842.5	742.6	673.3
55°	587.0	629.0	732.9	836.8	876.5	916.3	873.7	831.1	750.5	669.9	611.4
57.5°	531.4	568.8	654.0	739.2	769.8	800.5	761.9	723.3	662.5	601.8	553.0
60°	476.9	507.5	578.5	649.5	668.2	686.9	655.7	624.5	581.9	539.3	495.6
62.5°	426.4	454.2	507.0	559.8	572.3	584.7	560.9	537.1	504.7	472.3	438.3
65°	374.1	395.1	438.3	481.4	489.4	497.3	476.3	455.3	430.9	406.5	381.5
67.5°	325.9	340.6	375.8	411.0	411.6	412.2	395.1	378.1	364.5	350.8	331.0
70°	278.7	292.9	316.2	339.5	340.1	340.6	327.0	313.4	303.2	292.9	278.2
72.5°	230.5	240.7	258.3	275.9	274.8	273.6	265.1	256.6	248.7	240.7	229.9
75°	186.8	195.3	207.2	219.1	215.7	212.3	207.8	203.2	196.4	189.6	182.8
77.5°	147.0	152.1	159.0	165.8	163.5	161.2	157.3	153.3	148.2	143.1	140.2
80°	107.9	110.1	114.7	119.2	118.1	116.9	112.4	107.9	106.7	105.6	101.6
82.5°	73.2	76.1	77.2	78.3	77.8	77.2	73.8	70.4	69.3	68.1	67.6
85°	43.7	44.3	44.8	45.4	43.7	42.0	40.9	39.7	39.7	39.7	39.2
87.5°	19.9	20.4	20.4	20.4	19.9	19.3	18.2	17.0	17.6	18.2	18.2
90°	24.5	20.6	16.8	14.2	11.6	7.7	5.2	2.6	5.2	7.7	11.6
92.5°	198.4	130.1	88.9	65.7	52.8	41.2	28.3	19.3	28.3	41.2	52.8
95°	469.0	277.0	167.5	117.3	83.8	61.8	47.7	43.8	47.7	61.8	83.8
97.5°	521.8	298.9	190.7	135.3	101.8	82.5	70.9	69.6	70.9	82.5	101.8
100°	485.8	295.1	204.9	154.6	123.7	105.7	96.6	95.3	96.6	105.7	123.7
102.5°	454.8	300.2	221.6	176.5	149.5	132.7	125.0	122.4	125.0	132.7	149.5
105°	443.2	310.5	240.9	201.0	176.5	161.1	153.3	149.5	153.3	161.1	176.5
107.5°	440.7	327.3	265.4	228.1	204.9	189.4	181.7	177.8	181.7	189.4	204.9
110°	447.1	349.2	291.2	255.1	233.2	219.0	212.6	208.7	212.6	219.0	233.2



TEST NUMBER: P831623

CATALOG NUMBER: S123DIP-S775D1195U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	460.0	371.1	318.3	283.5	261.6	247.4	240.9	237.1	240.9	247.4	261.6
115°	474.2	395.6	346.6	311.8	289.9	277.0	269.3	264.1	269.3	277.0	289.9
117.5°	492.2	421.3	372.4	340.2	315.7	304.1	297.6	291.2	297.6	304.1	315.7
120°	512.8	445.8	399.4	367.2	342.7	329.9	323.4	319.5	323.4	329.9	342.7
122.5°	532.1	471.6	426.5	391.7	368.5	354.3	347.9	344.0	347.9	354.3	368.5
125°	552.8	496.1	451.0	416.2	391.7	377.5	369.8	367.2	369.8	377.5	391.7
127.5°	569.5	518.0	474.2	439.4	412.3	398.1	389.1	385.3	389.1	398.1	412.3
130°	586.3	537.3	494.8	460.0	432.9	417.5	405.9	402.0	405.9	417.5	432.9
132.5°	601.7	554.1	512.8	479.3	452.3	432.9	420.0	414.9	420.0	432.9	452.3
135°	614.6	570.8	530.9	496.1	469.0	449.7	435.5	430.4	435.5	449.7	469.0
137.5°	624.9	582.4	543.7	511.5	484.5	463.9	449.7	444.5	449.7	463.9	484.5
140°	632.6	594.0	556.6	524.4	498.6	478.0	465.1	458.7	465.1	478.0	498.6
142.5°	640.4	603.0	566.9	537.3	511.5	493.5	479.3	474.2	479.3	493.5	511.5
145°	645.5	610.7	577.2	547.6	525.7	506.4	494.8	490.9	494.8	506.4	525.7
147.5°	649.4	617.2	586.3	560.5	538.6	521.8	510.2	507.7	510.2	521.8	538.6
150°	650.7	623.6	594.0	570.8	552.8	536.0	525.7	524.4	525.7	536.0	552.8
152.5°	653.3	627.5	603.0	581.1	565.6	551.5	541.2	541.2	541.2	551.5	565.6
155°	653.3	632.6	610.7	592.7	578.5	565.6	557.9	557.9	557.9	565.6	578.5
157.5°	654.6	635.2	617.2	603.0	590.1	578.5	572.1	570.8	572.1	578.5	590.1
160°	654.6	639.1	623.6	610.7	601.7	591.4	586.3	586.3	586.3	591.4	601.7
162.5°	653.3	640.4	627.5	617.2	609.5	601.7	597.9	597.9	597.9	601.7	609.5
165°	650.7	641.7	631.4	622.3	617.2	610.7	608.2	609.5	608.2	610.7	617.2
167.5°	649.4	641.7	633.9	627.5	623.6	618.5	617.2	618.5	617.2	618.5	623.6
170°	645.5	640.4	633.9	631.4	628.8	624.9	623.6	626.2	623.6	624.9	628.8
172.5°	644.2	640.4	635.2	633.9	632.6	630.1	630.1	631.4	630.1	630.1	632.6
175°	641.7	639.1	636.5	635.2	635.2	632.6	633.9	635.2	633.9	632.6	635.2
177.5°	640.4	637.8	636.5	636.5	636.5	635.2	636.5	637.8	636.5	635.2	636.5
180°	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5



TEST NUMBER: P831623

CATALOG NUMBER: S123DIP-S775D1195U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8	2446.8
2.5°	2348.1	2325.9	2303.8	2286.8	2269.7	2240.8	2211.8	2205.0	2198.2	2188.5	2178.9
5°	2226.6	2172.1	2117.6	2068.7	2019.9	1981.9	1943.9	1918.9	1893.9	1875.7	1857.6
7.5°	2084.6	2002.9	1921.1	1863.2	1805.3	1750.3	1695.2	1677.6	1660.0	1636.2	1612.3
10°	1947.3	1857.0	1766.7	1691.2	1615.7	1561.8	1507.8	1486.3	1464.7	1434.6	1404.5
12.5°	1824.6	1725.8	1627.1	1551.0	1474.9	1422.7	1370.5	1339.2	1308.0	1291.0	1273.9
15°	1696.3	1590.7	1485.1	1414.7	1344.3	1297.2	1250.1	1222.9	1195.6	1179.1	1162.7
17.5°	1582.8	1478.3	1373.9	1306.3	1238.8	1195.6	1152.5	1128.6	1104.8	1092.3	1079.8
20°	1474.9	1372.7	1270.5	1204.7	1138.8	1103.6	1068.4	1053.1	1037.8	1027.6	1017.3
22.5°	1376.1	1275.7	1175.2	1119.0	1062.8	1034.4	1006.0	995.2	984.4	975.9	967.4
25°	1277.4	1187.7	1098.0	1050.3	1002.6	979.3	956.0	945.2	934.5	925.9	917.4
27.5°	1196.7	1111.0	1025.3	984.4	943.5	925.4	907.2	898.7	890.2	882.2	874.3
30°	1118.4	1041.8	965.1	929.9	894.7	878.3	861.8	853.3	844.8	837.4	830.0
32.5°	1045.7	979.9	914.0	881.7	849.3	835.7	822.0	811.8	801.6	795.9	790.3
35°	976.5	917.4	858.4	831.7	805.0	791.4	777.8	769.3	760.7	756.2	751.7
37.5°	917.4	864.6	811.8	786.3	760.7	747.7	734.6	727.2	719.9	718.2	716.5
40°	857.2	811.8	766.4	741.4	716.5	705.1	693.7	689.2	684.7	683.5	682.4
42.5°	807.3	763.0	718.7	696.0	673.3	663.7	654.0	651.7	649.5	651.2	652.9
45°	749.4	712.5	675.6	654.6	633.6	625.6	617.7	616.0	614.3	617.7	621.1
47.5°	700.6	666.5	632.4	612.6	592.7	587.0	581.3	580.8	580.2	584.7	589.3
50°	650.6	617.7	584.7	568.8	553.0	547.8	542.7	544.4	546.1	553.5	560.9
52.5°	604.0	573.4	542.7	528.0	513.2	509.8	506.4	510.4	514.3	522.3	530.2
55°	553.0	525.1	497.3	486.0	474.6	471.2	467.8	475.7	483.7	491.1	498.5
57.5°	504.1	479.7	455.3	445.1	434.9	434.3	433.7	441.1	448.5	456.4	464.4
60°	451.9	431.5	411.0	403.1	395.1	396.3	397.4	405.9	414.4	420.7	426.9
62.5°	404.2	387.2	370.1	362.8	355.4	358.2	361.1	369.6	378.1	385.5	392.9
65°	356.5	342.3	328.1	323.0	317.9	321.9	325.9	333.2	340.6	345.7	350.8
67.5°	311.1	299.2	287.3	283.3	279.3	283.3	287.3	294.6	302.0	307.1	312.2
70°	263.4	253.8	244.1	241.3	238.4	243.0	247.5	253.8	260.0	265.1	270.2
72.5°	219.1	211.8	204.4	203.8	203.2	207.2	211.2	217.4	223.7	227.1	230.5
75°	176.0	172.0	168.0	167.5	166.9	170.9	174.9	178.3	181.7	184.5	187.3
77.5°	137.4	134.0	130.6	131.1	131.7	134.5	137.4	140.8	144.2	145.9	147.6
80°	97.6	96.5	95.4	96.5	97.6	99.9	102.2	104.5	106.7	107.9	109.0
82.5°	67.0	65.9	64.7	66.4	68.1	69.8	71.5	73.2	74.9	75.5	76.1
85°	38.6	40.3	42.0	42.0	42.0	42.6	43.1	43.7	44.3	43.7	43.1
87.5°	18.2	18.7	19.3	19.3	19.3	19.9	20.4	20.4	20.4	19.9	19.3
90°	14.2	16.8	20.6	24.5	28.3	32.2	30.9	32.2	33.5	34.8	37.4
92.5°	65.7	88.9	130.1	198.4	265.4	239.7	179.1	127.6	99.2	86.3	77.3
95°	117.3	167.5	277.0	469.0	680.3	764.1	619.8	463.9	314.4	246.1	199.7
97.5°	135.3	190.7	298.9	521.8	877.5	1175.1	1215.0	1065.6	804.0	633.9	487.0
100°	154.6	204.9	295.1	485.8	824.6	1220.2	1474.0	1519.1	1414.8	1264.0	1081.0
102.5°	176.5	221.6	300.2	454.8	747.3	1136.4	1486.9	1669.9	1691.8	1619.6	1520.4
105°	201.0	240.9	310.5	443.2	686.8	1035.9	1405.7	1675.0	1803.9	1828.4	1794.9
107.5°	228.1	265.4	327.3	440.7	643.0	947.0	1289.8	1597.7	1800.0	1900.5	1935.3
110°	255.1	291.2	349.2	447.1	619.8	873.6	1181.5	1476.6	1713.7	1876.0	1966.2



TEST NUMBER: P831623

CATALOG NUMBER: S123DIP-S775D1195U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	283.5	318.3	371.1	460.0	606.9	824.6	1087.5	1356.8	1600.3	1787.1	1909.5
115°	311.8	346.6	395.6	474.2	605.6	792.4	1015.3	1253.7	1477.9	1667.3	1807.8
117.5°	340.2	372.4	421.3	492.2	606.9	770.5	967.7	1173.8	1372.2	1546.2	1691.8
120°	367.2	399.4	445.8	512.8	612.0	756.3	931.6	1113.3	1287.2	1441.8	1572.0
122.5°	391.7	426.5	471.6	532.1	621.1	747.3	901.9	1065.6	1218.9	1359.4	1477.9
125°	416.2	451.0	496.1	552.8	630.1	739.6	877.5	1024.3	1164.8	1288.5	1391.6
127.5°	439.4	474.2	518.0	569.5	640.4	735.7	854.3	987.0	1114.5	1227.9	1323.3
130°	460.0	494.8	537.3	586.3	650.7	731.9	836.2	952.2	1068.2	1172.5	1260.1
132.5°	479.3	512.8	554.1	601.7	658.4	730.6	819.5	920.0	1024.3	1119.7	1202.2
135°	496.1	530.9	570.8	614.6	666.1	729.3	805.3	891.6	983.1	1066.9	1140.3
137.5°	511.5	543.7	582.4	624.9	671.3	726.7	792.4	864.6	941.9	1016.6	1082.3
140°	524.4	556.6	594.0	632.6	676.5	725.4	780.8	841.4	907.1	968.9	1024.3
142.5°	537.3	566.9	603.0	640.4	680.3	722.8	770.5	819.5	873.6	925.1	971.5
145°	547.6	577.2	610.7	645.5	681.6	720.3	761.5	802.7	845.2	886.5	923.8
147.5°	560.5	586.3	617.2	649.4	681.6	716.4	752.5	788.6	823.3	858.1	885.2
150°	570.8	594.0	623.6	650.7	681.6	711.2	743.5	773.1	802.7	829.8	854.3
152.5°	581.1	603.0	627.5	653.3	677.7	704.8	733.2	758.9	783.4	806.6	825.9
155°	592.7	610.7	632.6	653.3	675.2	697.1	722.8	744.7	765.4	784.7	800.2
157.5°	603.0	617.2	635.2	654.6	671.3	690.6	711.2	729.3	747.3	762.8	775.7
160°	610.7	623.6	639.1	654.6	668.7	682.9	699.6	716.4	730.6	743.5	752.5
162.5°	617.2	627.5	640.4	653.3	663.6	675.2	688.1	700.9	712.5	724.1	731.9
165°	622.3	631.4	641.7	650.7	658.4	667.4	677.7	688.1	695.8	704.8	711.2
167.5°	627.5	633.9	641.7	649.4	653.3	659.7	667.4	676.5	682.9	688.1	693.2
170°	631.4	633.9	640.4	645.5	648.1	652.0	658.4	664.9	668.7	673.9	676.5
172.5°	633.9	635.2	640.4	644.2	644.2	645.5	649.4	654.6	657.1	661.0	662.3
175°	635.2	636.5	639.1	641.7	640.4	640.4	643.0	645.5	646.8	649.4	649.4
177.5°	636.5	636.5	637.8	640.4	637.8	636.5	637.8	639.1	640.4	641.7	641.7
180°	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5



TEST NUMBER: P831623

CATALOG NUMBER: S123DIP-S775D1195U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2446.8	2446.8	2446.8	2446.8
2.5°	2174.9	2170.9	2155.0	2139.1
5°	1843.9	1830.3	1825.8	1821.2
7.5°	1611.2	1610.0	1586.2	1562.3
10°	1406.2	1407.9	1386.4	1364.8
12.5°	1259.8	1245.6	1243.9	1242.2
15°	1149.6	1136.6	1134.3	1132.0
17.5°	1071.8	1063.9	1061.6	1059.4
20°	1012.8	1008.3	1004.3	1000.3
22.5°	961.7	956.0	952.6	949.2
25°	912.3	907.2	906.1	904.9
27.5°	868.0	861.8	861.8	861.8
30°	826.0	822.0	820.3	818.6
32.5°	786.9	783.4	783.4	783.4
35°	749.9	748.2	746.0	743.7
37.5°	716.5	716.5	715.3	714.2
40°	684.1	685.8	685.8	685.8
42.5°	654.6	656.3	656.3	656.3
45°	623.9	626.8	627.9	629.0
47.5°	593.8	598.4	599.5	600.6
50°	564.3	567.7	568.3	568.8
52.5°	534.2	538.2	541.0	543.9
55°	502.4	506.4	508.1	509.8
57.5°	468.4	472.3	472.9	473.5
60°	430.9	434.9	436.0	437.1
62.5°	395.1	397.4	398.5	399.7
65°	354.3	357.7	359.9	362.2
67.5°	315.1	317.9	317.9	317.9
70°	271.4	272.5	274.2	275.9
72.5°	231.1	231.6	231.6	231.6
75°	188.5	189.6	190.2	190.8
77.5°	148.2	148.7	148.7	148.7
80°	108.4	107.9	107.9	107.9
82.5°	74.4	72.7	72.7	72.7
85°	42.6	42.0	42.6	43.1
87.5°	19.3	19.3	19.3	19.3
90°	36.1	37.4	38.7	37.4
92.5°	74.7	69.6	70.9	68.3
95°	175.2	163.6	154.6	149.5
97.5°	400.7	351.8	320.8	306.7
100°	950.9	856.8	806.6	807.9
102.5°	1426.4	1356.8	1316.8	1279.5
105°	1735.6	1686.6	1645.4	1639.0
107.5°	1927.6	1904.4	1887.6	1873.5
110°	2002.3	2012.6	2010.0	2007.5



TEST NUMBER: P831623

CATALOG NUMBER: S123DIP-S775D1195U850-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	1983.0	2020.4	2033.2	2034.5
115°	1904.4	1961.1	1986.9	1993.3
117.5°	1792.3	1855.4	1894.1	1903.1
120°	1673.7	1745.9	1776.8	1784.6
122.5°	1565.5	1628.7	1663.4	1673.7
125°	1474.0	1530.7	1562.9	1572.0
127.5°	1398.0	1447.0	1476.6	1484.3
130°	1328.4	1374.8	1401.9	1412.2
132.5°	1265.3	1311.7	1334.9	1341.3
135°	1203.4	1242.1	1265.3	1274.3
137.5°	1136.4	1176.4	1195.7	1203.4
140°	1073.3	1109.4	1130.0	1128.7
142.5°	1011.5	1042.4	1060.4	1059.1
145°	956.1	983.1	993.4	996.0
147.5°	911.0	930.3	940.6	941.9
150°	873.6	887.8	895.5	895.5
152.5°	840.1	853.0	856.8	856.8
155°	811.7	822.1	824.6	825.9
157.5°	786.0	793.7	796.3	796.3
160°	761.5	769.2	769.2	767.9
162.5°	737.0	743.5	743.5	742.2
165°	716.4	721.6	720.3	720.3
167.5°	695.8	699.6	698.4	698.4
170°	677.7	680.3	679.0	679.0
172.5°	662.3	664.9	662.3	661.0
175°	649.4	650.7	649.4	648.1
177.5°	640.4	641.7	639.1	639.1
180°	636.5	636.5	636.5	636.5



TEST NUMBER: P831623

CATALOG NUMBER: S123DIP-S775D1195U850-4F0-1E-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	14.46	15.25	15.46	16.26	17.60	16.69	17.48	17.70	18.49	19.83
	3H	16.10	16.80	17.12	17.82	19.19	18.11	18.82	19.13	19.84	21.20
	4H	16.67	17.34	17.70	18.36	19.73	18.56	19.23	19.59	20.25	21.62
	6H	17.04	17.65	18.08	18.68	20.06	18.83	19.45	19.87	20.47	21.86
	8H	17.13	17.72	18.18	18.76	20.14	18.89	19.48	19.94	20.52	21.90
	12H	17.18	17.73	18.23	18.77	20.17	18.91	19.47	19.96	20.50	21.90
4H	2H	15.02	15.69	16.06	16.71	18.08	16.85	17.52	17.88	18.54	19.91
	3H	16.85	17.40	17.89	18.45	19.84	18.46	19.02	19.50	20.07	21.45
	4H	17.54	18.05	18.59	19.09	20.50	19.04	19.55	20.09	20.59	22.00
	6H	18.01	18.45	19.07	19.52	20.92	19.44	19.88	20.50	20.95	22.35
	8H	18.15	18.56	19.21	19.61	21.03	19.55	19.96	20.61	21.02	22.44
	12H	18.21	18.58	19.29	19.65	21.07	19.60	19.96	20.67	21.04	22.46
8H	4H	17.80	18.21	18.86	19.27	20.68	19.14	19.55	20.20	20.61	22.03
	6H	18.39	18.72	19.47	19.83	21.24	19.64	19.98	20.72	21.08	22.49
	8H	18.60	18.89	19.68	19.97	21.41	19.82	20.12	20.91	21.20	22.63
	12H	18.72	18.98	19.81	20.05	21.53	19.92	20.18	21.01	21.26	22.73
12H	4H	17.80	18.17	18.88	19.24	20.66	19.11	19.48	20.19	20.56	21.98
	6H	18.44	18.73	19.53	19.82	21.25	19.66	19.95	20.75	21.04	22.47
	8H	18.67	18.93	19.76	20.01	21.48	19.85	20.11	20.95	21.19	22.66