

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: P831680

Luminaire Tested: S123DIP-S775D585U927-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831680
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-S775D585U927-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

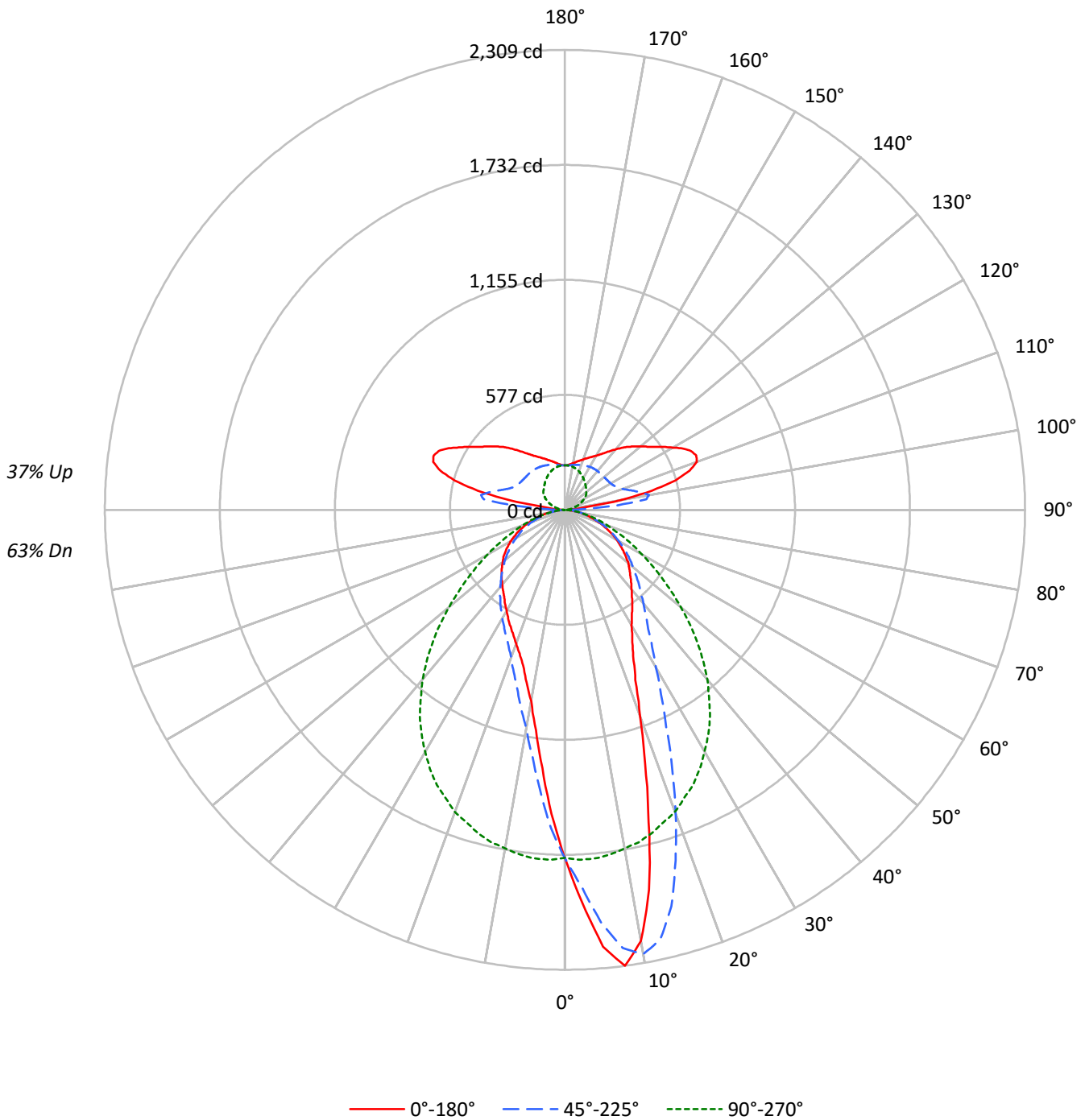
Lumens per Lamp: N/A
Luminaire Lumens: 4489.9 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.1
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					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	79	79	79	68	68	68	63				
1	101	97	93	90	95	91	88	85	80	78	76	70	68	67	61	60	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	55	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	42	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	59	48	41	36	43	37	33	38	34	30	34	31	28	25				
8	58	46	39	33	55	44	37	32	40	34	30	36	31	27	32	28	25	23				
9	54	42	35	30	51	40	34	29	37	31	27	33	28	25	30	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°	18813	18813	18813	18813	18813
5°	23793	22456	18982	15297	14056
10°	24024	24751	18855	12193	10656
15°	18094	22979	18727	10326	9011
20°	12607	18594	18488	9030	8184
25°	9613	14300	18081	8308	7677
30°	8316	11361	17429	7798	7269
35°	7716	9592	16679	7428	6980
40°	7305	8604	15625	7078	6884
45°	7062	7963	14285	6803	6839
50°	6941	7457	12698	6553	6804
55°	6683	7084	11142	6317	6835
60°	6443	6687	9604	6095	6723
65°	6052	6311	8283	5855	6589
70°	5589	5832	7046	5463	6203
75°	5061	5228	6039	5078	5669
80°	4172	4575	4779	4426	4779
85°	3310	3705	3507	3754	3804

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 16309 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.2	3.7
10°-20°	411.1	9.2
20°-30°	486.7	10.8
30°-40°	489.4	10.9
40°-50°	449.0	10.0
50°-60°	370.6	8.3
60°-70°	262.2	5.8
70°-80°	139.9	3.1
80°-90°	36.7	0.8
90°-100°	121.1	2.7
100°-110°	354.6	7.9
110°-120°	346.3	7.7
120°-130°	275.8	6.1
130°-140°	217.6	4.8
140°-150°	162.3	3.6
150°-160°	113.2	2.5
160°-170°	66.5	1.5
170°-180°	21.6	0.5
0°-30°	1063.1	23.7
0°-40°	1552.5	34.6
0°-60°	2372.1	52.8
0°-90°	2810.9	62.6
90°-120°	822.0	18.3
90°-150°	1477.7	32.9
90°-180°	1679.0	37.4
0°-180°	4489.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1748	1748	1748	1748	1748	
5°	2202	2078	1757	1416	1301	210
15°	1624	2062	1680	927	809	449
25°	809	1204	1522	700	646	382
35°	587	730	1269	565	531	369
45°	464	523	938	447	449	359
55°	356	378	594	337	364	319
65°	238	248	325	230	259	236
75°	122	126	145	122	136	128
85°	27	30	28	30	31	30
90°	13	11	1	11	13	9
95°	52	268	15	268	52	85
105°	575	363	52	363	575	573
115°	699	278	93	278	699	682
125°	551	259	129	259	551	499
135°	447	256	151	256	447	347
145°	349	253	172	253	349	222
155°	290	244	196	244	290	135
165°	253	234	214	234	253	72
175°	227	225	223	225	227	22
180°	223	223	223	223	223	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8
2.5°	1970.1	1968.0	1966.0	1955.9	1945.7	1940.9	1936.0	1921.4	1906.8	1890.6	1874.4
5°	2202.0	2207.7	2213.4	2206.9	2200.4	2180.5	2160.7	2134.3	2107.9	2078.3	2048.7
7.5°	2309.1	2312.3	2315.6	2311.5	2307.5	2302.2	2296.9	2273.4	2249.9	2219.5	2189.0
10°	2198.0	2205.3	2212.6	2228.4	2244.2	2262.0	2279.9	2276.6	2273.4	2264.5	2255.6
12.5°	1953.8	1962.8	1971.7	2003.3	2034.9	2075.5	2116.1	2150.9	2185.8	2210.1	2234.5
15°	1623.7	1648.5	1673.2	1702.0	1730.8	1790.4	1850.0	1923.4	1996.8	2062.1	2127.4
17.5°	1337.4	1346.8	1356.1	1386.9	1417.7	1492.8	1567.8	1652.5	1737.3	1845.6	1953.8
20°	1100.6	1109.1	1117.6	1158.2	1198.7	1257.5	1316.3	1411.6	1506.9	1623.3	1739.7
22.5°	924.6	938.0	951.4	974.1	996.8	1053.2	1109.5	1194.3	1279.0	1407.6	1536.1
25°	809.4	819.2	828.9	842.7	856.5	901.5	946.5	1016.3	1086.0	1204.0	1322.0
27.5°	730.8	734.8	738.9	752.7	766.5	795.6	824.8	884.9	944.9	1045.0	1145.2
30°	669.1	672.0	674.8	687.0	699.1	719.0	738.9	782.3	825.7	914.1	1002.5
32.5°	626.1	628.2	630.2	639.5	648.8	663.0	677.2	708.9	740.5	813.5	886.5
35°	587.2	588.4	589.6	596.5	603.4	614.0	624.5	648.4	672.4	730.0	787.5
37.5°	553.1	554.8	556.4	560.4	564.5	573.8	583.2	602.2	621.3	665.5	709.7
40°	519.9	522.7	525.6	528.4	531.2	538.9	546.7	561.3	575.9	612.3	648.8
42.5°	491.5	494.3	497.2	498.4	499.6	504.1	508.5	521.9	535.3	562.5	589.6
45°	463.9	465.1	466.4	467.6	468.8	472.4	476.1	487.9	499.6	523.1	546.7
47.5°	438.8	438.8	438.8	439.6	440.4	443.6	446.9	455.4	463.9	482.2	500.4
50°	414.5	414.5	414.5	413.2	412.0	414.0	416.1	422.6	429.1	445.3	461.5
52.5°	385.3	385.3	385.3	385.7	386.1	386.1	386.1	391.7	397.4	412.0	426.6
55°	356.1	357.7	359.3	358.1	356.9	357.7	358.5	362.1	365.8	377.5	389.3
57.5°	326.9	327.7	328.5	328.1	327.7	328.1	328.5	331.7	335.0	343.9	352.8
60°	299.3	299.3	299.3	298.5	297.7	298.5	299.3	300.9	302.5	310.6	318.7
62.5°	268.5	268.9	269.3	269.7	270.1	269.3	268.5	270.5	272.5	278.6	284.7
65°	237.6	238.0	238.5	239.7	240.9	240.1	239.3	241.3	243.3	247.8	252.2
67.5°	210.1	209.3	208.4	208.8	209.3	210.5	211.7	212.1	212.5	217.4	222.2
70°	177.6	178.4	179.2	178.8	178.4	178.8	179.2	180.5	181.7	185.3	189.0
72.5°	148.4	148.8	149.2	149.2	149.2	150.0	150.9	152.1	153.3	155.3	157.3
75°	121.7	121.7	121.7	122.5	123.3	123.7	124.1	124.1	124.1	125.7	127.3
77.5°	92.5	94.5	96.5	96.1	95.7	96.5	97.3	98.5	99.8	100.6	101.4
80°	67.3	67.3	67.3	67.7	68.1	69.3	70.6	71.4	72.2	73.8	75.4
82.5°	43.0	43.4	43.8	45.0	46.2	47.0	47.9	49.1	50.3	50.3	50.3
85°	26.8	26.0	25.1	26.0	26.8	27.6	28.4	28.8	29.2	30.0	30.8
87.5°	13.0	13.0	13.0	13.0	13.0	13.4	13.8	13.8	13.8	13.8	13.8
90°	13.1	13.6	13.1	12.7	13.1	12.2	11.7	11.3	10.8	11.3	9.9
92.5°	23.9	24.9	24.4	26.2	27.1	30.3	34.8	44.7	62.8	84.0	93.1
95°	52.4	54.2	57.4	61.5	70.0	86.3	110.2	162.7	217.3	267.9	238.6
97.5°	107.5	112.5	123.4	140.5	170.8	222.3	281.9	373.7	426.1	412.1	307.7
100°	283.3	282.9	300.5	333.5	379.1	443.3	496.1	532.7	516.9	427.9	289.2
102.5°	448.7	461.8	475.8	500.2	533.2	568.0	593.3	585.6	521.4	398.5	262.1
105°	574.7	577.0	591.5	608.6	629.4	641.2	632.6	587.4	493.0	363.3	240.8
107.5°	657.0	661.9	667.8	676.0	678.7	666.5	631.2	560.3	452.3	332.1	225.5
110°	704.0	704.9	705.8	702.2	689.5	657.9	600.9	517.8	414.3	306.3	217.3

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	713.5	713.0	708.5	695.4	669.6	626.7	561.2	475.8	381.4	289.2	212.8
115°	699.0	696.7	687.7	667.8	633.9	584.7	518.3	439.6	356.0	277.9	212.4
117.5°	667.4	664.2	650.6	628.5	593.3	542.2	481.2	411.6	339.3	270.2	212.8
120°	625.8	623.1	612.2	586.9	551.2	505.6	451.4	390.4	326.7	265.2	214.6
122.5°	586.9	583.3	571.1	549.0	518.3	476.7	427.4	373.7	316.3	262.1	217.8
125°	551.2	548.1	536.8	516.9	488.0	451.8	408.5	359.2	307.7	259.4	220.9
127.5°	520.5	517.8	507.4	490.2	464.0	430.6	390.8	346.1	299.6	258.0	224.6
130°	495.2	491.6	482.1	465.8	441.9	411.2	374.6	333.9	293.2	256.6	228.2
132.5°	470.4	468.1	460.0	443.7	421.6	392.6	359.2	322.6	287.4	256.2	230.9
135°	446.9	443.7	435.6	422.0	399.9	374.1	344.8	312.7	282.4	255.7	233.6
137.5°	422.0	419.3	412.5	398.5	379.5	356.5	330.3	303.2	277.9	254.8	235.4
140°	395.8	396.3	389.0	376.4	359.2	339.8	318.1	295.1	273.8	254.4	237.2
142.5°	371.4	371.9	365.5	354.7	340.7	324.4	306.3	287.4	270.2	253.5	238.6
145°	349.3	348.4	344.8	335.3	324.0	310.9	296.4	281.5	267.0	252.6	239.0
147.5°	330.3	329.8	326.2	319.5	310.4	300.9	288.7	276.5	263.9	251.2	239.0
150°	314.0	314.0	311.3	306.3	299.6	291.0	281.5	271.1	260.7	249.4	239.0
152.5°	300.5	300.5	299.1	294.6	289.6	282.9	274.7	266.1	257.1	247.2	237.7
155°	289.6	289.2	288.3	284.7	280.6	275.2	268.4	261.2	253.5	244.4	236.8
157.5°	279.2	279.2	278.3	275.6	272.0	267.5	262.1	255.7	249.4	242.2	235.4
160°	269.3	269.7	269.7	267.0	263.9	260.7	256.2	251.2	245.3	239.5	234.5
162.5°	260.3	260.7	260.7	258.5	256.6	253.9	249.9	245.8	241.3	236.8	232.7
165°	252.6	252.6	253.0	251.2	249.4	247.2	244.0	241.3	237.7	234.1	230.9
167.5°	244.9	244.9	245.3	244.0	243.1	241.3	239.5	237.2	234.1	231.3	229.1
170°	238.1	238.1	238.6	237.7	237.2	236.3	234.5	233.1	230.9	228.6	227.3
172.5°	231.8	232.2	233.1	232.2	232.2	231.8	230.4	229.5	227.7	226.4	225.9
175°	227.3	227.7	228.2	227.7	227.7	227.7	226.8	226.4	225.5	224.6	224.6
177.5°	224.1	224.1	225.0	224.6	225.0	225.0	224.6	224.1	223.7	223.2	223.7
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8
2.5°	1869.5	1864.6	1846.8	1828.9	1808.7	1788.4	1773.4	1758.4	1736.1	1713.8	1695.5
5°	2026.0	2003.3	1965.6	1927.9	1876.8	1825.7	1791.2	1756.8	1710.5	1664.3	1627.4
7.5°	2150.1	2111.2	2058.5	2005.7	1938.8	1871.9	1808.7	1745.4	1674.8	1604.3	1546.7
10°	2229.2	2202.8	2142.0	2081.2	1991.6	1901.9	1813.5	1725.1	1634.3	1543.4	1467.2
12.5°	2236.9	2239.3	2183.4	2127.4	2026.0	1924.6	1817.2	1709.7	1595.4	1481.0	1392.2
15°	2169.2	2210.9	2180.1	2149.3	2047.1	1944.9	1812.7	1680.5	1548.7	1416.9	1314.3
17.5°	2043.5	2133.1	2137.5	2142.0	2039.8	1937.6	1791.2	1644.8	1495.6	1346.4	1238.5
20°	1871.9	2004.1	2049.5	2095.0	2011.8	1928.7	1771.4	1614.0	1446.9	1279.9	1166.7
22.5°	1696.7	1857.3	1940.5	2023.6	1962.0	1900.3	1732.8	1565.3	1388.9	1212.5	1097.8
25°	1497.2	1672.4	1800.1	1927.9	1890.2	1852.5	1687.4	1522.4	1334.6	1146.8	1029.6
27.5°	1323.2	1501.3	1655.4	1809.5	1801.4	1793.3	1629.4	1465.6	1273.4	1081.1	968.0
30°	1168.3	1334.2	1506.5	1678.9	1698.8	1718.6	1560.5	1402.3	1209.7	1017.1	908.0
32.5°	1031.3	1176.0	1361.0	1545.9	1584.8	1623.7	1481.0	1338.2	1147.6	957.0	852.0
35°	918.9	1050.3	1235.2	1420.2	1468.8	1517.5	1393.4	1269.3	1083.6	897.8	797.7
37.5°	819.6	929.5	1109.9	1290.4	1350.0	1409.6	1298.5	1187.4	1013.4	839.4	747.4
40°	737.3	825.7	991.5	1157.4	1226.3	1295.3	1203.6	1112.0	946.9	781.9	697.1
42.5°	668.3	747.0	897.4	1047.9	1114.0	1180.1	1102.6	1025.2	878.4	731.6	654.1
45°	609.5	672.4	809.0	945.7	1008.6	1071.4	1004.9	938.4	809.0	679.7	607.5
47.5°	554.4	608.3	725.1	841.9	897.8	953.8	901.9	850.0	740.5	631.0	565.7
50°	504.9	548.3	650.5	752.7	801.3	850.0	804.2	758.3	668.3	578.3	521.5
52.5°	461.9	497.2	582.7	668.3	710.1	751.9	712.5	673.2	601.8	530.4	481.0
55°	419.3	449.3	523.5	597.8	626.1	654.5	624.1	593.7	536.1	478.5	436.8
57.5°	379.6	406.3	467.2	528.0	549.9	571.8	544.2	516.6	473.3	429.9	395.0
60°	340.6	362.5	413.2	463.9	477.3	490.7	468.4	446.1	415.7	385.3	354.0
62.5°	304.6	324.4	362.1	399.9	408.8	417.7	400.7	383.6	360.5	337.4	313.1
65°	267.2	282.2	313.1	343.9	349.6	355.2	340.2	325.2	307.8	290.4	272.5
67.5°	232.8	243.3	268.5	293.6	294.0	294.4	282.2	270.1	260.3	250.6	236.4
70°	199.1	209.3	225.9	242.5	242.9	243.3	233.6	223.9	216.6	209.3	198.7
72.5°	164.6	171.9	184.5	197.1	196.3	195.5	189.4	183.3	177.6	171.9	164.2
75°	133.4	139.5	148.0	156.5	154.1	151.7	148.4	145.2	140.3	135.4	130.6
77.5°	105.0	108.7	113.5	118.4	116.8	115.2	112.3	109.5	105.8	102.2	100.2
80°	77.1	78.7	81.9	85.2	84.4	83.5	80.3	77.1	76.2	75.4	72.6
82.5°	52.3	54.3	55.2	56.0	55.6	55.2	52.7	50.3	49.5	48.7	48.3
85°	31.2	31.6	32.0	32.4	31.2	30.0	29.2	28.4	28.4	28.4	28.0
87.5°	14.2	14.6	14.6	14.6	14.2	13.8	13.0	12.2	12.6	13.0	13.0
90°	8.6	7.2	5.9	5.0	4.1	2.7	1.8	0.9	1.8	2.7	4.1
92.5°	69.6	45.6	31.2	23.0	18.5	14.5	9.9	6.8	9.9	14.5	18.5
95°	164.5	97.1	58.7	41.1	29.4	21.7	16.7	15.4	16.7	21.7	29.4
97.5°	183.0	104.8	66.9	47.4	35.7	28.9	24.9	24.4	24.9	28.9	35.7
100°	170.3	103.5	71.8	54.2	43.4	37.1	33.9	33.4	33.9	37.1	43.4
102.5°	159.5	105.3	77.7	61.9	52.4	46.5	43.8	42.9	43.8	46.5	52.4
105°	155.4	108.9	84.5	70.5	61.9	56.5	53.8	52.4	53.8	56.5	61.9
107.5°	154.5	114.8	93.1	80.0	71.8	66.4	63.7	62.4	63.7	66.4	71.8
110°	156.8	122.4	102.1	89.5	81.8	76.8	74.6	73.2	74.6	76.8	81.8



TEST NUMBER: P831680

CATALOG NUMBER: S123DIP-S775D585U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	161.3	130.1	111.6	99.4	91.7	86.8	84.5	83.1	84.5	86.8	91.7
115°	166.3	138.7	121.5	109.3	101.7	97.1	94.4	92.6	94.4	97.1	101.7
117.5°	172.6	147.8	130.6	119.3	110.7	106.6	104.4	102.1	104.4	106.6	110.7
120°	179.8	156.3	140.1	128.8	120.2	115.7	113.4	112.1	113.4	115.7	120.2
122.5°	186.6	165.4	149.6	137.4	129.2	124.3	122.0	120.6	122.0	124.3	129.2
125°	193.8	174.0	158.1	145.9	137.4	132.4	129.7	128.8	129.7	132.4	137.4
127.5°	199.7	181.6	166.3	154.1	144.6	139.6	136.5	135.1	136.5	139.6	144.6
130°	205.6	188.4	173.5	161.3	151.8	146.4	142.3	141.0	142.3	146.4	151.8
132.5°	211.0	194.3	179.8	168.1	158.6	151.8	147.3	145.5	147.3	151.8	158.6
135°	215.5	200.2	186.2	174.0	164.5	157.7	152.7	150.9	152.7	157.7	164.5
137.5°	219.1	204.2	190.7	179.4	169.9	162.7	157.7	155.9	157.7	162.7	169.9
140°	221.9	208.3	195.2	183.9	174.9	167.6	163.1	160.9	163.1	167.6	174.9
142.5°	224.6	211.5	198.8	188.4	179.4	173.1	168.1	166.3	168.1	173.1	179.4
145°	226.4	214.2	202.4	192.0	184.4	177.6	173.5	172.2	173.5	177.6	184.4
147.5°	227.7	216.4	205.6	196.6	188.9	183.0	178.9	178.0	178.9	183.0	188.9
150°	228.2	218.7	208.3	200.2	193.8	188.0	184.4	183.9	184.4	188.0	193.8
152.5°	229.1	220.0	211.5	203.8	198.4	193.4	189.8	189.8	189.8	193.4	198.4
155°	229.1	221.9	214.2	207.8	202.9	198.4	195.6	195.6	195.6	198.4	202.9
157.5°	229.5	222.8	216.4	211.5	206.9	202.9	200.6	200.2	200.6	202.9	206.9
160°	229.5	224.1	218.7	214.2	211.0	207.4	205.6	205.6	205.6	207.4	211.0
162.5°	229.1	224.6	220.0	216.4	213.7	211.0	209.7	209.7	209.7	211.0	213.7
165°	228.2	225.0	221.4	218.2	216.4	214.2	213.3	213.7	213.3	214.2	216.4
167.5°	227.7	225.0	222.3	220.0	218.7	216.9	216.4	216.9	216.4	216.9	218.7
170°	226.4	224.6	222.3	221.4	220.5	219.1	218.7	219.6	218.7	219.1	220.5
172.5°	225.9	224.6	222.8	222.3	221.9	220.9	220.9	221.4	220.9	220.9	221.9
175°	225.0	224.1	223.2	222.8	222.8	221.9	222.3	222.8	222.3	221.9	222.8
177.5°	224.6	223.7	223.2	223.2	223.2	222.8	223.2	223.7	223.2	222.8	223.2
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



TEST NUMBER: P831680

CATALOG NUMBER: S123DIP-S775D585U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8	1747.8
2.5°	1677.3	1661.5	1645.6	1633.5	1621.3	1600.6	1579.9	1575.1	1570.2	1563.3	1556.4
5°	1590.5	1551.6	1512.6	1477.7	1442.9	1415.7	1388.5	1370.7	1352.8	1339.9	1326.9
7.5°	1489.1	1430.7	1372.3	1330.9	1289.6	1250.2	1210.9	1198.3	1185.8	1168.7	1151.7
10°	1391.0	1326.5	1262.0	1208.1	1154.1	1115.6	1077.1	1061.7	1046.3	1024.8	1003.3
12.5°	1303.4	1232.8	1162.2	1107.9	1053.6	1016.3	978.9	956.6	934.3	922.2	910.0
15°	1211.7	1136.3	1060.9	1010.6	960.3	926.6	893.0	873.5	854.0	842.3	830.5
17.5°	1130.6	1056.0	981.4	933.1	884.9	854.0	823.2	806.2	789.2	780.2	771.3
20°	1053.6	980.6	907.6	860.5	813.5	788.3	763.2	752.3	741.3	734.0	726.7
22.5°	983.0	911.2	839.4	799.3	759.2	738.9	718.6	710.9	703.2	697.1	691.0
25°	912.4	848.4	784.3	750.2	716.2	699.5	682.9	675.2	667.5	661.4	655.3
27.5°	854.9	793.6	732.4	703.2	674.0	661.0	648.0	642.0	635.9	630.2	624.5
30°	798.9	744.1	689.4	664.3	639.1	627.4	615.6	609.5	603.4	598.2	592.9
32.5°	747.0	699.9	652.9	629.8	606.7	596.9	587.2	579.9	572.6	568.6	564.5
35°	697.5	655.3	613.2	594.1	575.0	565.3	555.6	549.5	543.4	540.2	536.9
37.5°	655.3	617.6	579.9	561.7	543.4	534.1	524.8	519.5	514.2	513.0	511.8
40°	612.3	579.9	547.5	529.6	511.8	503.7	495.6	492.3	489.1	488.3	487.4
42.5°	576.7	545.0	513.4	497.2	481.0	474.1	467.2	465.5	463.9	465.1	466.4
45°	535.3	508.9	482.6	467.6	452.6	446.9	441.2	440.0	438.8	441.2	443.6
47.5°	500.4	476.1	451.8	437.6	423.4	419.3	415.3	414.9	414.5	417.7	420.9
50°	464.7	441.2	417.7	406.3	395.0	391.3	387.7	388.9	390.1	395.4	400.7
52.5°	431.5	409.6	387.7	377.1	366.6	364.2	361.7	364.6	367.4	373.1	378.8
55°	395.0	375.1	355.2	347.1	339.0	336.6	334.2	339.8	345.5	350.8	356.1
57.5°	360.1	342.7	325.2	317.9	310.6	310.2	309.8	315.1	320.4	326.0	331.7
60°	322.8	308.2	293.6	287.9	282.2	283.1	283.9	290.0	296.0	300.5	305.0
62.5°	288.7	276.6	264.4	259.1	253.9	255.9	257.9	264.0	270.1	275.4	280.6
65°	254.7	244.5	234.4	230.7	227.1	229.9	232.8	238.0	243.3	247.0	250.6
67.5°	222.2	213.7	205.2	202.4	199.5	202.4	205.2	210.5	215.7	219.4	223.0
70°	188.2	181.3	174.4	172.3	170.3	173.6	176.8	181.3	185.7	189.4	193.0
72.5°	156.5	151.3	146.0	145.6	145.2	148.0	150.9	155.3	159.8	162.2	164.6
75°	125.7	122.9	120.0	119.6	119.2	122.1	124.9	127.3	129.8	131.8	133.8
77.5°	98.1	95.7	93.3	93.7	94.1	96.1	98.1	100.6	103.0	104.2	105.4
80°	69.8	68.9	68.1	68.9	69.8	71.4	73.0	74.6	76.2	77.1	77.9
82.5°	47.9	47.0	46.2	47.4	48.7	49.9	51.1	52.3	53.5	53.9	54.3
85°	27.6	28.8	30.0	30.0	30.0	30.4	30.8	31.2	31.6	31.2	30.8
87.5°	13.0	13.4	13.8	13.8	13.8	14.2	14.6	14.6	14.6	14.2	13.8
90°	5.0	5.9	7.2	8.6	9.9	11.3	10.8	11.3	11.7	12.2	13.1
92.5°	23.0	31.2	45.6	69.6	93.1	84.0	62.8	44.7	34.8	30.3	27.1
95°	41.1	58.7	97.1	164.5	238.6	267.9	217.3	162.7	110.2	86.3	70.0
97.5°	47.4	66.9	104.8	183.0	307.7	412.1	426.1	373.7	281.9	222.3	170.8
100°	54.2	71.8	103.5	170.3	289.2	427.9	516.9	532.7	496.1	443.3	379.1
102.5°	61.9	77.7	105.3	159.5	262.1	398.5	521.4	585.6	593.3	568.0	533.2
105°	70.5	84.5	108.9	155.4	240.8	363.3	493.0	587.4	632.6	641.2	629.4
107.5°	80.0	93.1	114.8	154.5	225.5	332.1	452.3	560.3	631.2	666.5	678.7
110°	89.5	102.1	122.4	156.8	217.3	306.3	414.3	517.8	600.9	657.9	689.5



TEST NUMBER: P831680

CATALOG NUMBER: S123DIP-S775D585U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	99.4	111.6	130.1	161.3	212.8	289.2	381.4	475.8	561.2	626.7	669.6
115°	109.3	121.5	138.7	166.3	212.4	277.9	356.0	439.6	518.3	584.7	633.9
117.5°	119.3	130.6	147.8	172.6	212.8	270.2	339.3	411.6	481.2	542.2	593.3
120°	128.8	140.1	156.3	179.8	214.6	265.2	326.7	390.4	451.4	505.6	551.2
122.5°	137.4	149.6	165.4	186.6	217.8	262.1	316.3	373.7	427.4	476.7	518.3
125°	145.9	158.1	174.0	193.8	220.9	259.4	307.7	359.2	408.5	451.8	488.0
127.5°	154.1	166.3	181.6	199.7	224.6	258.0	299.6	346.1	390.8	430.6	464.0
130°	161.3	173.5	188.4	205.6	228.2	256.6	293.2	333.9	374.6	411.2	441.9
132.5°	168.1	179.8	194.3	211.0	230.9	256.2	287.4	322.6	359.2	392.6	421.6
135°	174.0	186.2	200.2	215.5	233.6	255.7	282.4	312.7	344.8	374.1	399.9
137.5°	179.4	190.7	204.2	219.1	235.4	254.8	277.9	303.2	330.3	356.5	379.5
140°	183.9	195.2	208.3	221.9	237.2	254.4	273.8	295.1	318.1	339.8	359.2
142.5°	188.4	198.8	211.5	224.6	238.6	253.5	270.2	287.4	306.3	324.4	340.7
145°	192.0	202.4	214.2	226.4	239.0	252.6	267.0	281.5	296.4	310.9	324.0
147.5°	196.6	205.6	216.4	227.7	239.0	251.2	263.9	276.5	288.7	300.9	310.4
150°	200.2	208.3	218.7	228.2	239.0	249.4	260.7	271.1	281.5	291.0	299.6
152.5°	203.8	211.5	220.0	229.1	237.7	247.2	257.1	266.1	274.7	282.9	289.6
155°	207.8	214.2	221.9	229.1	236.8	244.4	253.5	261.2	268.4	275.2	280.6
157.5°	211.5	216.4	222.8	229.5	235.4	242.2	249.4	255.7	262.1	267.5	272.0
160°	214.2	218.7	224.1	229.5	234.5	239.5	245.3	251.2	256.2	260.7	263.9
162.5°	216.4	220.0	224.6	229.1	232.7	236.8	241.3	245.8	249.9	253.9	256.6
165°	218.2	221.4	225.0	228.2	230.9	234.1	237.7	241.3	244.0	247.2	249.4
167.5°	220.0	222.3	225.0	227.7	229.1	231.3	234.1	237.2	239.5	241.3	243.1
170°	221.4	222.3	224.6	226.4	227.3	228.6	230.9	233.1	234.5	236.3	237.2
172.5°	222.3	222.8	224.6	225.9	225.9	226.4	227.7	229.5	230.4	231.8	232.2
175°	222.8	223.2	224.1	225.0	224.6	224.6	225.5	226.4	226.8	227.7	227.7
177.5°	223.2	223.2	223.7	224.6	223.7	223.2	223.7	224.1	224.6	225.0	225.0
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



TEST NUMBER: P831680

CATALOG NUMBER: S123DIP-S775D585U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1747.8	1747.8	1747.8	1747.8
2.5°	1553.6	1550.7	1539.4	1528.0
5°	1317.2	1307.4	1304.2	1300.9
7.5°	1150.9	1150.1	1133.0	1116.0
10°	1004.5	1005.7	990.3	974.9
12.5°	899.9	889.7	888.5	887.3
15°	821.2	811.9	810.2	808.6
17.5°	765.6	760.0	758.3	756.7
20°	723.5	720.2	717.4	714.5
22.5°	687.0	682.9	680.5	678.0
25°	651.7	648.0	647.2	646.4
27.5°	620.1	615.6	615.6	615.6
30°	590.0	587.2	586.0	584.8
32.5°	562.1	559.6	559.6	559.6
35°	535.7	534.5	532.9	531.2
37.5°	511.8	511.8	511.0	510.2
40°	488.7	489.9	489.9	489.9
42.5°	467.6	468.8	468.8	468.8
45°	445.7	447.7	448.5	449.3
47.5°	424.2	427.4	428.2	429.1
50°	403.1	405.5	405.9	406.3
52.5°	381.6	384.4	386.5	388.5
55°	358.9	361.7	362.9	364.2
57.5°	334.6	337.4	337.8	338.2
60°	307.8	310.6	311.4	312.3
62.5°	282.2	283.9	284.7	285.5
65°	253.1	255.5	257.1	258.7
67.5°	225.1	227.1	227.1	227.1
70°	193.8	194.7	195.9	197.1
72.5°	165.1	165.5	165.5	165.5
75°	134.6	135.4	135.9	136.3
77.5°	105.8	106.2	106.2	106.2
80°	77.5	77.1	77.1	77.1
82.5°	53.1	51.9	51.9	51.9
85°	30.4	30.0	30.4	30.8
87.5°	13.8	13.8	13.8	13.8
90°	12.7	13.1	13.6	13.1
92.5°	26.2	24.4	24.9	23.9
95°	61.5	57.4	54.2	52.4
97.5°	140.5	123.4	112.5	107.5
100°	333.5	300.5	282.9	283.3
102.5°	500.2	475.8	461.8	448.7
105°	608.6	591.5	577.0	574.7
107.5°	676.0	667.8	661.9	657.0
110°	702.2	705.8	704.9	704.0



TEST NUMBER: P831680

CATALOG NUMBER: S123DIP-S775D585U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	695.4	708.5	713.0	713.5
115°	667.8	687.7	696.7	699.0
117.5°	628.5	650.6	664.2	667.4
120°	586.9	612.2	623.1	625.8
122.5°	549.0	571.1	583.3	586.9
125°	516.9	536.8	548.1	551.2
127.5°	490.2	507.4	517.8	520.5
130°	465.8	482.1	491.6	495.2
132.5°	443.7	460.0	468.1	470.4
135°	422.0	435.6	443.7	446.9
137.5°	398.5	412.5	419.3	422.0
140°	376.4	389.0	396.3	395.8
142.5°	354.7	365.5	371.9	371.4
145°	335.3	344.8	348.4	349.3
147.5°	319.5	326.2	329.8	330.3
150°	306.3	311.3	314.0	314.0
152.5°	294.6	299.1	300.5	300.5
155°	284.7	288.3	289.2	289.6
157.5°	275.6	278.3	279.2	279.2
160°	267.0	269.7	269.7	269.3
162.5°	258.5	260.7	260.7	260.3
165°	251.2	253.0	252.6	252.6
167.5°	244.0	245.3	244.9	244.9
170°	237.7	238.6	238.1	238.1
172.5°	232.2	233.1	232.2	231.8
175°	227.7	228.2	227.7	227.3
177.5°	224.6	225.0	224.1	224.1
180°	223.2	223.2	223.2	223.2



TEST NUMBER: P831680

CATALOG NUMBER: S123DIP-S775D585U927-4F0-1E-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	14.87	15.81	15.72	16.67	17.75	17.10	18.04	17.95	18.91	19.99
	3H	16.52	17.36	17.38	18.24	19.34	18.53	19.37	19.40	20.25	21.36
	4H	17.10	17.89	17.98	18.78	19.90	18.99	19.78	19.87	20.66	21.78
	6H	17.48	18.21	18.37	19.09	20.23	19.27	20.00	20.16	20.89	22.02
	8H	17.57	18.27	18.47	19.18	20.31	19.33	20.03	20.23	20.93	22.07
	12H	17.62	18.28	18.52	19.18	20.34	19.35	20.02	20.26	20.92	22.07
4H	2H	15.45	16.25	16.33	17.13	18.25	17.28	18.07	18.16	18.95	20.07
	3H	17.29	17.95	18.18	18.86	19.99	18.90	19.56	19.80	20.48	21.61
	4H	17.99	18.59	18.89	19.50	20.66	19.49	20.09	20.39	21.00	22.16
	6H	18.47	18.99	19.39	19.92	21.08	19.90	20.42	20.82	21.35	22.51
	8H	18.61	19.09	19.53	20.02	21.19	20.01	20.50	20.93	21.42	22.60
	12H	18.68	19.11	19.62	20.06	21.24	20.06	20.49	21.00	21.44	22.62
8H	4H	18.26	18.74	19.18	19.67	20.85	19.60	20.08	20.52	21.01	22.19
	6H	18.85	19.25	19.80	20.22	21.40	20.11	20.51	21.05	21.47	22.65
	8H	19.06	19.41	20.02	20.37	21.57	20.29	20.64	21.24	21.60	22.79
	12H	19.19	19.50	20.15	20.45	21.69	20.39	20.70	21.35	21.65	22.90
12H	4H	18.26	18.70	19.20	19.65	20.83	19.58	20.01	20.52	20.96	22.14
	6H	18.90	19.26	19.86	20.22	21.41	20.12	20.47	21.08	21.43	22.63
	8H	19.14	19.45	20.10	20.40	21.65	20.32	20.63	21.28	21.59	22.83