

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: P831635

Luminaire Tested: S123DIP-S775D1195U940-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831635  
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-S775D1195U940-4F0-1E-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: -

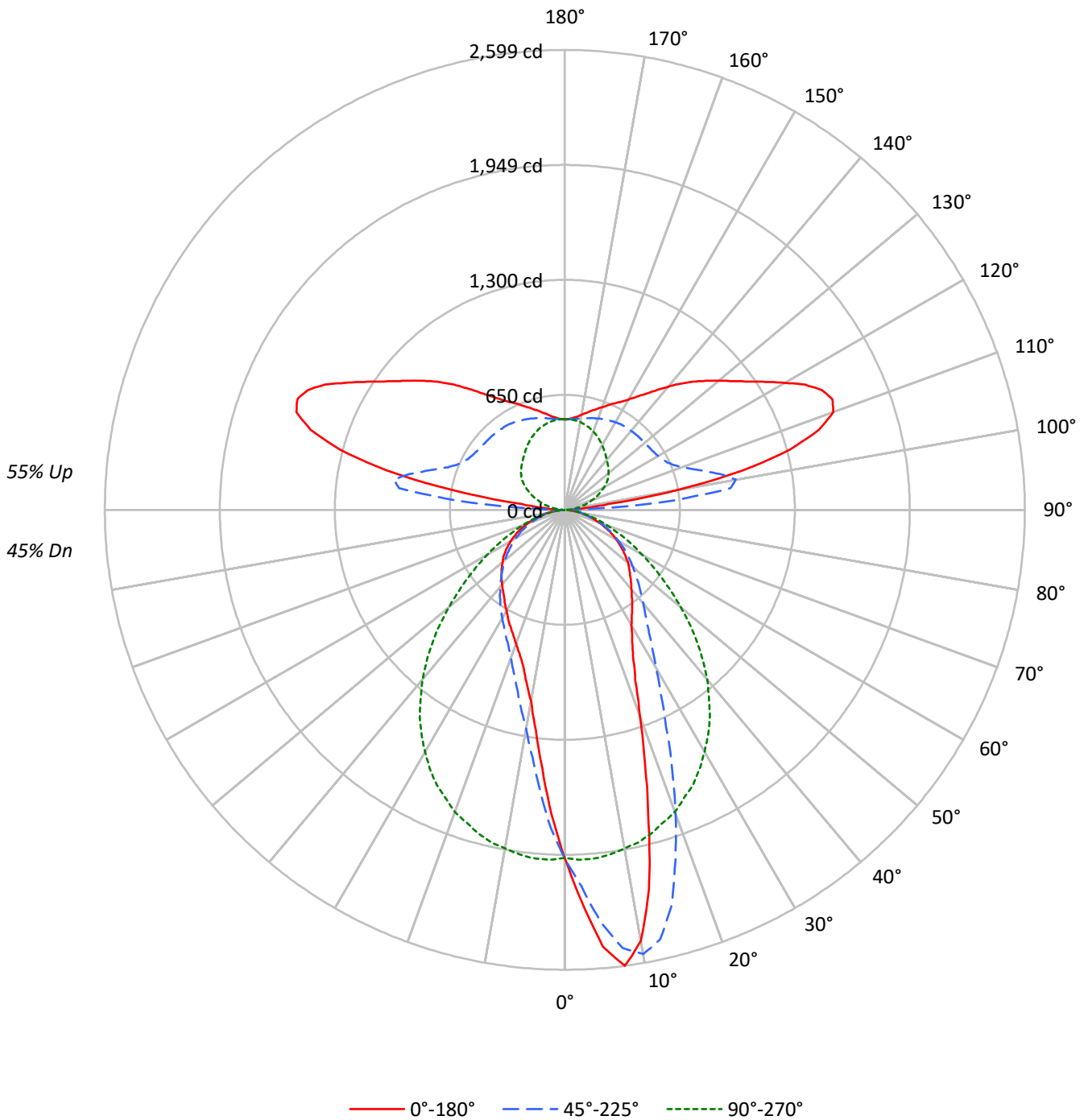
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7015.3 lumens  
Efficiency: N/A  
Efficacy: 123.3 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°	21177	21177	21177	21177	21177
5°	26782	25278	21367	17219	15823
10°	27042	27860	21225	13726	11995
15°	20367	25867	21080	11624	10143
20°	14191	20931	20811	10165	9213
25°	10821	16096	20352	9352	8641
30°	9362	12788	19619	8777	8181
35°	8686	10797	18775	8361	7858
40°	8223	9686	17588	7966	7748
45°	7949	8965	16079	7657	7700
50°	7812	8393	14294	7376	7659
55°	7522	7976	12542	7111	7692
60°	7253	7528	10809	6859	7567
65°	6813	7103	9324	6592	7417
70°	6291	6565	7931	6150	6980
75°	5693	5885	6796	5714	6380
80°	4699	5151	5374	4978	5374
85°	3717	4174	3952	4224	4286

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 18358 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	186.0	2.7
10°-20°	462.7	6.6
20°-30°	547.9	7.8
30°-40°	550.9	7.9
40°-50°	505.4	7.2
50°-60°	417.2	5.9
60°-70°	295.1	4.2
70°-80°	157.5	2.2
80°-90°	42.8	0.6
90°-100°	277.7	4.0
100°-110°	813.1	11.6
110°-120°	794.0	11.3
120°-130°	632.3	9.0
130°-140°	498.9	7.1
140°-150°	372.2	5.3
150°-160°	259.5	3.7
160°-170°	152.4	2.2
170°-180°	49.6	0.7
0°-30°	1196.6	17.1
0°-40°	1747.5	24.9
0°-60°	2670.1	38.1
0°-90°	3165.5	45.1
90°-120°	1884.8	26.9
90°-150°	3388.3	48.3
90°-180°	3850.0	54.9
0°-180°	7015.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1967	1967	1967	1967	1967	
5°	2479	2340	1978	1594	1464	236
15°	1828	2321	1892	1043	910	505
25°	911	1355	1714	787	728	430
35°	661	822	1429	636	598	415
45°	522	589	1056	503	506	404
55°	401	425	668	379	410	359
65°	268	279	366	259	291	266
75°	137	142	163	137	153	144
85°	30	34	32	34	35	34
90°	30	26	2	26	30	18
95°	120	614	35	614	120	195
105°	1318	833	120	833	1318	1315
115°	1603	637	212	637	1603	1563
125°	1264	595	295	595	1264	1144
135°	1025	586	346	586	1025	795
145°	801	579	395	579	801	509
155°	664	560	449	560	664	309
165°	579	537	490	537	579	165
175°	521	515	511	515	521	51
180°	512	512	512	512	512	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4
2.5°	2217.6	2215.3	2213.0	2201.6	2190.2	2184.7	2179.2	2162.8	2146.4	2128.1	2109.8
5°	2478.7	2485.1	2491.5	2484.2	2476.9	2454.5	2432.1	2402.5	2372.8	2339.5	2306.1
7.5°	2599.2	2602.8	2606.5	2601.9	2597.4	2591.4	2585.5	2559.0	2532.5	2498.3	2464.1
10°	2474.1	2482.3	2490.6	2508.4	2526.2	2546.2	2566.3	2562.7	2559.0	2549.0	2538.9
12.5°	2199.3	2209.4	2219.4	2255.0	2290.6	2336.3	2381.9	2421.2	2460.4	2487.8	2515.2
15°	1827.7	1855.6	1883.4	1915.8	1948.3	2015.4	2082.5	2165.1	2247.7	2321.2	2394.7
17.5°	1505.5	1516.0	1526.5	1561.2	1595.9	1680.3	1764.8	1860.2	1955.6	2077.4	2199.3
20°	1238.9	1248.5	1258.1	1303.7	1349.4	1415.5	1481.7	1589.0	1696.3	1827.3	1958.3
22.5°	1040.8	1055.8	1070.9	1096.5	1122.0	1185.5	1248.9	1344.3	1439.7	1584.4	1729.1
25°	911.1	922.1	933.0	948.6	964.1	1014.8	1065.4	1143.9	1222.5	1355.3	1488.1
27.5°	822.6	827.1	831.7	847.2	862.7	895.6	928.5	996.0	1063.6	1176.3	1289.1
30°	753.2	756.4	759.6	773.3	787.0	809.3	831.7	880.5	929.4	1028.9	1128.4
32.5°	704.8	707.1	709.4	719.9	730.4	746.3	762.3	797.9	833.5	915.7	997.9
35°	661.0	662.4	663.7	671.5	679.2	691.1	703.0	729.9	756.8	821.7	886.5
37.5°	622.6	624.5	626.3	630.9	635.4	645.9	656.4	677.9	699.3	749.1	798.8
40°	585.2	588.4	591.6	594.8	598.0	606.7	615.3	631.8	648.2	689.3	730.4
42.5°	553.3	556.4	559.6	561.0	562.4	567.4	572.4	587.5	602.6	633.1	663.7
45°	522.2	523.6	525.0	526.3	527.7	531.8	535.9	549.1	562.4	588.9	615.3
47.5°	493.9	493.9	493.9	494.8	495.7	499.4	503.0	512.6	522.2	542.8	563.3
50°	466.5	466.5	466.5	465.2	463.8	466.1	468.3	475.7	483.0	501.2	519.5
52.5°	433.7	433.7	433.7	434.1	434.6	434.6	434.6	441.0	447.4	463.8	480.2
55°	400.8	402.6	404.4	403.1	401.7	402.6	403.5	407.6	411.7	425.0	438.2
57.5°	367.9	368.8	369.7	369.3	368.8	369.3	369.7	373.4	377.1	387.1	397.1
60°	336.9	336.9	336.9	336.0	335.1	336.0	336.9	338.7	340.5	349.7	358.8
62.5°	302.2	302.6	303.1	303.6	304.0	303.1	302.2	304.5	306.8	313.6	320.4
65°	267.5	268.0	268.4	269.8	271.1	270.2	269.3	271.6	273.9	278.9	283.9
67.5°	236.5	235.5	234.6	235.1	235.5	236.9	238.3	238.7	239.2	244.7	250.2
70°	199.9	200.9	201.8	201.3	200.9	201.3	201.8	203.1	204.5	208.6	212.7
72.5°	167.1	167.5	168.0	168.0	168.0	168.9	169.8	171.2	172.5	174.8	177.1
75°	136.9	136.9	136.9	137.9	138.8	139.2	139.7	139.7	139.7	141.5	143.3
77.5°	104.1	106.4	108.6	108.2	107.7	108.6	109.6	110.9	112.3	113.2	114.1
80°	75.8	75.8	75.8	76.2	76.7	78.1	79.4	80.3	81.3	83.1	84.9
82.5°	48.4	48.8	49.3	50.7	52.0	53.0	53.9	55.2	56.6	56.6	56.6
85°	30.1	29.2	28.3	29.2	30.1	31.0	32.0	32.4	32.9	33.8	34.7
87.5°	14.6	14.6	14.6	14.6	14.6	15.1	15.5	15.5	15.5	15.5	15.5
90°	30.0	31.1	30.0	29.0	30.0	28.0	26.9	25.9	24.9	25.9	22.8
92.5°	54.9	57.0	55.9	60.1	62.2	69.4	79.8	102.6	144.0	192.7	213.4
95°	120.2	124.3	131.6	140.9	160.6	197.9	252.8	373.0	498.3	614.4	547.0
97.5°	246.6	258.0	282.8	322.2	391.6	509.7	646.5	856.8	977.0	944.9	705.5
100°	649.6	648.6	689.0	764.6	869.2	1016.3	1137.6	1221.5	1185.2	981.1	663.1
102.5°	1028.8	1058.8	1090.9	1146.9	1222.5	1302.3	1360.3	1342.7	1195.6	913.8	600.9
105°	1317.8	1323.0	1356.2	1395.5	1443.2	1470.1	1450.4	1346.8	1130.3	833.0	552.2
107.5°	1506.4	1517.8	1531.3	1549.9	1556.1	1528.1	1447.3	1284.7	1037.1	761.5	517.0
110°	1614.1	1616.2	1618.3	1610.0	1581.0	1508.5	1377.9	1187.3	950.0	702.4	498.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1635.9	1634.9	1624.5	1594.5	1535.4	1437.0	1286.8	1090.9	874.4	663.1	488.0
115°	1602.7	1597.6	1576.8	1531.3	1453.6	1340.6	1188.3	1008.1	816.4	637.2	486.9
117.5°	1530.2	1523.0	1491.9	1441.1	1360.3	1243.2	1103.4	943.8	778.1	619.5	488.0
120°	1434.9	1428.7	1403.8	1345.8	1264.0	1159.3	1035.0	895.1	749.1	608.2	492.1
122.5°	1345.8	1337.5	1309.5	1258.8	1188.3	1093.0	980.1	856.8	725.2	600.9	499.4
125°	1264.0	1256.7	1230.8	1185.2	1118.9	1036.0	936.6	823.6	705.5	594.7	506.6
127.5°	1193.5	1187.3	1163.5	1124.1	1064.0	987.3	896.2	793.6	686.9	591.6	514.9
130°	1135.5	1127.2	1105.4	1068.1	1013.2	942.8	858.9	765.6	672.4	588.5	523.2
132.5°	1078.5	1073.3	1054.7	1017.4	966.6	900.3	823.6	739.7	658.9	587.4	529.4
135°	1024.6	1017.4	998.7	967.7	916.9	857.8	790.5	716.9	647.5	586.4	535.6
137.5°	967.7	961.4	945.9	913.8	870.3	817.4	757.3	695.2	637.2	584.3	539.8
140°	907.6	908.6	892.0	863.0	823.6	779.1	729.4	676.5	627.8	583.3	543.9
142.5°	851.6	852.7	838.1	813.3	781.2	743.9	702.4	658.9	619.5	581.2	547.0
145°	800.9	798.8	790.5	768.7	742.8	712.8	679.6	645.4	612.3	579.1	548.1
147.5°	757.3	756.3	748.0	732.5	711.8	690.0	662.0	634.1	605.0	576.0	548.1
150°	720.0	720.0	713.8	702.4	686.9	667.2	645.4	621.6	597.8	571.9	548.1
152.5°	689.0	689.0	685.9	675.5	664.1	648.6	629.9	610.2	589.5	566.7	545.0
155°	664.1	663.1	661.0	652.7	643.4	630.9	615.4	598.8	581.2	560.5	542.9
157.5°	640.3	640.3	638.2	632.0	623.7	613.3	600.9	586.4	571.9	555.3	539.8
160°	617.5	618.5	618.5	612.3	605.0	597.8	587.4	576.0	562.6	549.1	537.7
162.5°	596.8	597.8	597.8	592.6	588.5	582.2	572.9	563.6	553.2	542.9	533.6
165°	579.1	579.1	580.2	576.0	571.9	566.7	559.5	553.2	545.0	536.7	529.4
167.5°	561.5	561.5	562.6	559.5	557.4	553.2	549.1	543.9	536.7	530.4	525.3
170°	546.0	546.0	547.0	545.0	543.9	541.8	537.7	534.6	529.4	524.2	521.1
172.5°	531.5	532.5	534.6	532.5	532.5	531.5	528.4	526.3	522.2	519.1	518.0
175°	521.1	522.2	523.2	522.2	522.2	522.2	520.1	519.1	517.0	514.9	514.9
177.5°	513.9	513.9	515.9	514.9	515.9	515.9	514.9	513.9	512.8	511.8	512.8
180°	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4
2.5°	2104.4	2098.9	2078.8	2058.7	2035.9	2013.1	1996.2	1979.3	1954.2	1929.1	1908.5
5°	2280.6	2255.0	2212.6	2170.1	2112.6	2055.1	2016.3	1977.5	1925.4	1873.4	1831.9
7.5°	2420.3	2376.4	2317.1	2257.7	2182.4	2107.1	2035.9	1964.7	1885.3	1805.8	1741.0
10°	2509.3	2479.6	2411.1	2342.7	2241.8	2140.9	2041.4	1941.9	1839.6	1737.4	1651.5
12.5°	2517.9	2520.7	2457.7	2394.7	2280.6	2166.5	2045.5	1924.5	1795.8	1667.1	1567.1
15°	2441.7	2488.7	2454.0	2419.3	2304.3	2189.3	2040.5	1891.7	1743.3	1594.9	1479.5
17.5°	2300.2	2401.1	2406.1	2411.1	2296.1	2181.1	2016.3	1851.5	1683.5	1515.5	1394.1
20°	2107.1	2255.9	2307.0	2358.2	2264.6	2171.0	1993.9	1816.8	1628.7	1440.7	1313.3
22.5°	1909.9	2090.7	2184.3	2277.8	2208.4	2139.1	1950.5	1762.0	1563.4	1364.9	1235.7
25°	1685.3	1882.5	2026.3	2170.1	2127.7	2085.2	1899.4	1713.6	1502.3	1290.9	1159.0
27.5°	1489.5	1689.9	1863.4	2036.8	2027.7	2018.6	1834.1	1649.7	1433.3	1217.0	1089.6
30°	1315.1	1501.8	1695.8	1889.8	1912.2	1934.6	1756.5	1578.5	1361.7	1144.9	1022.1
32.5°	1160.8	1323.8	1531.9	1740.1	1783.9	1827.7	1667.1	1506.4	1291.8	1077.3	959.1
35°	1034.4	1182.3	1390.4	1598.6	1653.4	1708.1	1568.5	1428.8	1219.7	1010.6	897.9
37.5°	922.5	1046.3	1249.4	1452.5	1519.6	1586.7	1461.6	1336.6	1140.7	944.9	841.3
40°	829.9	929.4	1116.1	1302.8	1380.4	1458.0	1354.8	1251.7	1065.9	880.1	784.7
42.5°	752.3	840.8	1010.2	1179.5	1253.9	1328.4	1241.2	1154.0	988.7	823.5	736.3
45°	686.1	756.8	910.7	1064.5	1135.3	1206.0	1131.2	1056.3	910.7	765.1	683.8
47.5°	624.0	684.7	816.2	947.7	1010.6	1073.6	1015.2	956.8	833.5	710.3	636.8
50°	568.3	617.2	732.2	847.2	902.0	956.8	905.2	853.6	752.3	650.9	587.0
52.5°	519.9	559.6	656.0	752.3	799.3	846.3	802.0	757.8	677.4	597.1	541.4
55°	472.0	505.8	589.3	672.9	704.8	736.8	702.5	668.3	603.5	538.6	491.6
57.5°	427.3	457.4	525.9	594.3	619.0	643.6	612.6	581.6	532.7	483.9	444.6
60°	383.4	408.1	465.2	522.2	537.3	552.3	527.2	502.1	467.9	433.7	398.5
62.5°	342.8	365.2	407.6	450.1	460.1	470.2	451.0	431.8	405.8	379.8	352.4
65°	300.8	317.7	352.4	387.1	393.5	399.9	383.0	366.1	346.5	326.8	306.8
67.5°	262.0	273.9	302.2	330.5	330.9	331.4	317.7	304.0	293.1	282.1	266.1
70°	224.1	235.5	254.3	273.0	273.4	273.9	262.9	252.0	243.8	235.5	223.7
72.5°	185.3	193.5	207.7	221.8	220.9	220.0	213.2	206.3	199.9	193.5	184.9
75°	150.2	157.0	166.6	176.2	173.5	170.7	167.1	163.4	157.9	152.5	147.0
77.5°	118.2	122.3	127.8	133.3	131.5	129.6	126.4	123.2	119.1	115.0	112.8
80°	86.7	88.6	92.2	95.9	94.9	94.0	90.4	86.7	85.8	84.9	81.7
82.5°	58.9	61.2	62.1	63.0	62.5	62.1	59.3	56.6	55.7	54.8	54.3
85°	35.1	35.6	36.1	36.5	35.1	33.8	32.9	32.0	32.0	32.0	31.5
87.5°	16.0	16.4	16.4	16.4	16.0	15.5	14.6	13.7	14.2	14.6	14.6
90°	19.7	16.6	13.5	11.4	9.3	6.2	4.1	2.1	4.1	6.2	9.3
92.5°	159.5	104.6	71.5	52.8	42.5	33.2	22.8	15.5	22.8	33.2	42.5
95°	377.1	222.7	134.7	94.3	67.3	49.7	38.3	35.2	38.3	49.7	67.3
97.5°	419.6	240.4	153.3	108.8	81.8	66.3	57.0	55.9	57.0	66.3	81.8
100°	390.6	237.3	164.7	124.3	99.5	85.0	77.7	76.7	77.7	85.0	99.5
102.5°	365.7	241.4	178.2	141.9	120.2	106.7	100.5	98.4	100.5	106.7	120.2
105°	356.4	249.7	193.7	161.6	141.9	129.5	123.3	120.2	123.3	129.5	141.9
107.5°	354.3	263.2	213.4	183.4	164.7	152.3	146.1	143.0	146.1	152.3	164.7
110°	359.5	280.8	234.1	205.1	187.5	176.1	170.9	167.8	170.9	176.1	187.5





TEST NUMBER: P831635

CATALOG NUMBER: S123DIP-S775D1195U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	369.9	298.4	255.9	227.9	210.3	198.9	193.7	190.6	193.7	198.9	210.3
115°	381.3	318.1	278.7	250.7	233.1	222.7	216.5	212.4	216.5	222.7	233.1
117.5°	395.8	338.8	299.4	273.5	253.8	244.5	239.3	234.1	239.3	244.5	253.8
120°	412.3	358.5	321.2	295.3	275.6	265.2	260.0	256.9	260.0	265.2	275.6
122.5°	427.9	379.2	342.9	315.0	296.3	284.9	279.7	276.6	279.7	284.9	296.3
125°	444.5	398.9	362.6	334.6	315.0	303.6	297.3	295.3	297.3	303.6	315.0
127.5°	457.9	416.5	381.3	353.3	331.5	320.1	312.9	309.8	312.9	320.1	331.5
130°	471.4	432.0	397.8	369.9	348.1	335.7	326.3	323.2	326.3	335.7	348.1
132.5°	483.8	445.5	412.3	385.4	363.6	348.1	337.7	333.6	337.7	348.1	363.6
135°	494.2	459.0	426.8	398.9	377.1	361.6	350.2	346.0	350.2	361.6	377.1
137.5°	502.5	468.3	437.2	411.3	389.5	373.0	361.6	357.4	361.6	373.0	389.5
140°	508.7	477.6	447.6	421.7	400.9	384.4	374.0	368.8	374.0	384.4	400.9
142.5°	514.9	484.9	455.9	432.0	411.3	396.8	385.4	381.3	385.4	396.8	411.3
145°	519.1	491.1	464.1	440.3	422.7	407.2	397.8	394.7	397.8	407.2	422.7
147.5°	522.2	496.3	471.4	450.7	433.1	419.6	410.3	408.2	410.3	419.6	433.1
150°	523.2	501.4	477.6	459.0	444.5	431.0	422.7	421.7	422.7	431.0	444.5
152.5°	525.3	504.5	484.9	467.3	454.8	443.4	435.1	435.1	435.1	443.4	454.8
155°	525.3	508.7	491.1	476.6	465.2	454.8	448.6	448.6	448.6	454.8	465.2
157.5°	526.3	510.8	496.3	484.9	474.5	465.2	460.0	459.0	460.0	465.2	474.5
160°	526.3	513.9	501.4	491.1	483.8	475.5	471.4	471.4	471.4	475.5	483.8
162.5°	525.3	514.9	504.5	496.3	490.0	483.8	480.7	480.7	480.7	483.8	490.0
165°	523.2	515.9	507.7	500.4	496.3	491.1	489.0	490.0	489.0	491.1	496.3
167.5°	522.2	515.9	509.7	504.5	501.4	497.3	496.3	497.3	496.3	497.3	501.4
170°	519.1	514.9	509.7	507.7	505.6	502.5	501.4	503.5	501.4	502.5	505.6
172.5°	518.0	514.9	510.8	509.7	508.7	506.6	506.6	507.7	506.6	506.6	508.7
175°	515.9	513.9	511.8	510.8	510.8	508.7	509.7	510.8	509.7	508.7	510.8
177.5°	514.9	512.8	511.8	511.8	511.8	510.8	511.8	512.8	511.8	510.8	511.8
180°	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8



TEST NUMBER: P831635

CATALOG NUMBER: S123DIP-S775D1195U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4	1967.4
2.5°	1888.0	1870.2	1852.4	1838.7	1825.0	1801.7	1778.4	1773.0	1767.5	1759.7	1752.0
5°	1790.3	1746.5	1702.7	1663.4	1624.2	1593.6	1563.0	1542.9	1522.8	1508.2	1493.6
7.5°	1676.2	1610.5	1544.7	1498.2	1451.6	1407.3	1363.0	1348.9	1334.7	1315.6	1296.4
10°	1565.7	1493.1	1420.6	1359.9	1299.1	1255.8	1212.4	1195.1	1177.7	1153.5	1129.3
12.5°	1467.1	1387.7	1308.3	1247.1	1185.9	1143.9	1101.9	1076.8	1051.7	1038.0	1024.3
15°	1364.0	1279.1	1194.2	1137.5	1080.9	1043.1	1005.2	983.3	961.3	948.1	934.9
17.5°	1272.7	1188.7	1104.7	1050.4	996.0	961.3	926.7	907.5	888.3	878.3	868.2
20°	1185.9	1103.8	1021.6	968.7	915.7	887.4	859.1	846.8	834.4	826.2	818.0
22.5°	1106.5	1025.7	944.9	899.7	854.5	831.7	808.9	800.2	791.5	784.7	777.8
25°	1027.1	955.0	882.8	844.5	806.1	787.4	768.7	760.0	751.4	744.5	737.7
27.5°	962.3	893.3	824.4	791.5	758.7	744.1	729.5	722.6	715.8	709.4	703.0
30°	899.3	837.6	776.0	747.7	719.4	706.2	692.9	686.1	679.2	673.3	667.4
32.5°	840.8	787.9	734.9	708.9	682.9	671.9	661.0	652.8	644.5	640.0	635.4
35°	785.1	737.7	690.2	668.7	647.3	636.3	625.4	618.5	611.7	608.0	604.4
37.5°	737.7	695.2	652.8	632.2	611.7	601.2	590.7	584.8	578.8	577.4	576.1
40°	689.3	652.8	616.2	596.2	576.1	566.9	557.8	554.2	550.5	549.6	548.7
42.5°	649.1	613.5	577.9	559.6	541.4	533.6	525.9	524.0	522.2	523.6	525.0
45°	602.6	572.9	543.2	526.3	509.4	503.0	496.7	495.3	493.9	496.7	499.4
47.5°	563.3	535.9	508.5	492.5	476.6	472.0	467.4	467.0	466.5	470.2	473.8
50°	523.1	496.7	470.2	457.4	444.6	440.5	436.4	437.8	439.1	445.1	451.0
52.5°	485.7	461.0	436.4	424.5	412.7	409.9	407.2	410.4	413.6	420.0	426.4
55°	444.6	422.2	399.9	390.7	381.6	378.9	376.1	382.5	388.9	394.9	400.8
57.5°	405.4	385.7	366.1	357.9	349.7	349.2	348.8	354.7	360.6	367.0	373.4
60°	363.4	346.9	330.5	324.1	317.7	318.6	319.5	326.4	333.2	338.3	343.3
62.5°	325.0	311.3	297.6	291.7	285.8	288.0	290.3	297.2	304.0	309.9	315.9
65°	286.7	275.3	263.8	259.7	255.6	258.8	262.0	268.0	273.9	278.0	282.1
67.5°	250.2	240.6	231.0	227.8	224.6	227.8	231.0	236.9	242.8	247.0	251.1
70°	211.8	204.0	196.3	194.0	191.7	195.4	199.0	204.0	209.1	213.2	217.3
72.5°	176.2	170.3	164.3	163.9	163.4	166.6	169.8	174.8	179.9	182.6	185.3
75°	141.5	138.3	135.1	134.7	134.2	137.4	140.6	143.3	146.1	148.4	150.6
77.5°	110.5	107.7	105.0	105.4	105.9	108.2	110.5	113.2	115.9	117.3	118.7
80°	78.5	77.6	76.7	77.6	78.5	80.3	82.2	84.0	85.8	86.7	87.6
82.5°	53.9	53.0	52.0	53.4	54.8	56.1	57.5	58.9	60.3	60.7	61.2
85°	31.0	32.4	33.8	33.8	33.8	34.2	34.7	35.1	35.6	35.1	34.7
87.5°	14.6	15.1	15.5	15.5	15.5	16.0	16.4	16.4	16.4	16.0	15.5
90°	11.4	13.5	16.6	19.7	22.8	25.9	24.9	25.9	26.9	28.0	30.0
92.5°	52.8	71.5	104.6	159.5	213.4	192.7	144.0	102.6	79.8	69.4	62.2
95°	94.3	134.7	222.7	377.1	547.0	614.4	498.3	373.0	252.8	197.9	160.6
97.5°	108.8	153.3	240.4	419.6	705.5	944.9	977.0	856.8	646.5	509.7	391.6
100°	124.3	164.7	237.3	390.6	663.1	981.1	1185.2	1221.5	1137.6	1016.3	869.2
102.5°	141.9	178.2	241.4	365.7	600.9	913.8	1195.6	1342.7	1360.3	1302.3	1222.5
105°	161.6	193.7	249.7	356.4	552.2	833.0	1130.3	1346.8	1450.4	1470.1	1443.2
107.5°	183.4	213.4	263.2	354.3	517.0	761.5	1037.1	1284.7	1447.3	1528.1	1556.1
110°	205.1	234.1	280.8	359.5	498.3	702.4	950.0	1187.3	1377.9	1508.5	1581.0



TEST NUMBER: P831635

CATALOG NUMBER: S123DIP-S775D1195U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	227.9	255.9	298.4	369.9	488.0	663.1	874.4	1090.9	1286.8	1437.0	1535.4
115°	250.7	278.7	318.1	381.3	486.9	637.2	816.4	1008.1	1188.3	1340.6	1453.6
117.5°	273.5	299.4	338.8	395.8	488.0	619.5	778.1	943.8	1103.4	1243.2	1360.3
120°	295.3	321.2	358.5	412.3	492.1	608.2	749.1	895.1	1035.0	1159.3	1264.0
122.5°	315.0	342.9	379.2	427.9	499.4	600.9	725.2	856.8	980.1	1093.0	1188.3
125°	334.6	362.6	398.9	444.5	506.6	594.7	705.5	823.6	936.6	1036.0	1118.9
127.5°	353.3	381.3	416.5	457.9	514.9	591.6	686.9	793.6	896.2	987.3	1064.0
130°	369.9	397.8	432.0	471.4	523.2	588.5	672.4	765.6	858.9	942.8	1013.2
132.5°	385.4	412.3	445.5	483.8	529.4	587.4	658.9	739.7	823.6	900.3	966.6
135°	398.9	426.8	459.0	494.2	535.6	586.4	647.5	716.9	790.5	857.8	916.9
137.5°	411.3	437.2	468.3	502.5	539.8	584.3	637.2	695.2	757.3	817.4	870.3
140°	421.7	447.6	477.6	508.7	543.9	583.3	627.8	676.5	729.4	779.1	823.6
142.5°	432.0	455.9	484.9	514.9	547.0	581.2	619.5	658.9	702.4	743.9	781.2
145°	440.3	464.1	491.1	519.1	548.1	579.1	612.3	645.4	679.6	712.8	742.8
147.5°	450.7	471.4	496.3	522.2	548.1	576.0	605.0	634.1	662.0	690.0	711.8
150°	459.0	477.6	501.4	523.2	548.1	571.9	597.8	621.6	645.4	667.2	686.9
152.5°	467.3	484.9	504.5	525.3	545.0	566.7	589.5	610.2	629.9	648.6	664.1
155°	476.6	491.1	508.7	525.3	542.9	560.5	581.2	598.8	615.4	630.9	643.4
157.5°	484.9	496.3	510.8	526.3	539.8	555.3	571.9	586.4	600.9	613.3	623.7
160°	491.1	501.4	513.9	526.3	537.7	549.1	562.6	576.0	587.4	597.8	605.0
162.5°	496.3	504.5	514.9	525.3	533.6	542.9	553.2	563.6	572.9	582.2	588.5
165°	500.4	507.7	515.9	523.2	529.4	536.7	545.0	553.2	559.5	566.7	571.9
167.5°	504.5	509.7	515.9	522.2	525.3	530.4	536.7	543.9	549.1	553.2	557.4
170°	507.7	509.7	514.9	519.1	521.1	524.2	529.4	534.6	537.7	541.8	543.9
172.5°	509.7	510.8	514.9	518.0	518.0	519.1	522.2	526.3	528.4	531.5	532.5
175°	510.8	511.8	513.9	515.9	514.9	514.9	517.0	519.1	520.1	522.2	522.2
177.5°	511.8	511.8	512.8	514.9	512.8	511.8	512.8	513.9	514.9	515.9	515.9
180°	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8	511.8



TEST NUMBER: P831635

CATALOG NUMBER: S123DIP-S775D1195U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1967.4	1967.4	1967.4	1967.4
2.5°	1748.8	1745.6	1732.8	1720.0
5°	1482.6	1471.7	1468.0	1464.4
7.5°	1295.5	1294.6	1275.4	1256.2
10°	1130.7	1132.1	1114.7	1097.4
12.5°	1012.9	1001.5	1000.1	998.8
15°	924.4	913.9	912.0	910.2
17.5°	861.8	855.4	853.6	851.8
20°	814.4	810.7	807.5	804.3
22.5°	773.3	768.7	766.0	763.2
25°	733.6	729.5	728.5	727.6
27.5°	698.0	692.9	692.9	692.9
30°	664.2	661.0	659.6	658.2
32.5°	632.7	629.9	629.9	629.9
35°	603.0	601.6	599.8	598.0
37.5°	576.1	576.1	575.2	574.3
40°	550.1	551.4	551.4	551.4
42.5°	526.3	527.7	527.7	527.7
45°	501.7	504.0	504.9	505.8
47.5°	477.5	481.1	482.0	483.0
50°	453.7	456.5	456.9	457.4
52.5°	429.5	432.7	435.0	437.3
55°	404.0	407.2	408.5	409.9
57.5°	376.6	379.8	380.2	380.7
60°	346.5	349.7	350.6	351.5
62.5°	317.7	319.5	320.4	321.4
65°	284.8	287.6	289.4	291.2
67.5°	253.3	255.6	255.6	255.6
70°	218.2	219.1	220.5	221.8
72.5°	185.8	186.2	186.2	186.2
75°	151.6	152.5	152.9	153.4
77.5°	119.1	119.6	119.6	119.6
80°	87.2	86.7	86.7	86.7
82.5°	59.8	58.4	58.4	58.4
85°	34.2	33.8	34.2	34.7
87.5°	15.5	15.5	15.5	15.5
90°	29.0	30.0	31.1	30.0
92.5°	60.1	55.9	57.0	54.9
95°	140.9	131.6	124.3	120.2
97.5°	322.2	282.8	258.0	246.6
100°	764.6	689.0	648.6	649.6
102.5°	1146.9	1090.9	1058.8	1028.8
105°	1395.5	1356.2	1323.0	1317.8
107.5°	1549.9	1531.3	1517.8	1506.4
110°	1610.0	1618.3	1616.2	1614.1



TEST NUMBER: P831635

CATALOG NUMBER: S123DIP-S775D1195U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	1594.5	1624.5	1634.9	1635.9
115°	1531.3	1576.8	1597.6	1602.7
117.5°	1441.1	1491.9	1523.0	1530.2
120°	1345.8	1403.8	1428.7	1434.9
122.5°	1258.8	1309.5	1337.5	1345.8
125°	1185.2	1230.8	1256.7	1264.0
127.5°	1124.1	1163.5	1187.3	1193.5
130°	1068.1	1105.4	1127.2	1135.5
132.5°	1017.4	1054.7	1073.3	1078.5
135°	967.7	998.7	1017.4	1024.6
137.5°	913.8	945.9	961.4	967.7
140°	863.0	892.0	908.6	907.6
142.5°	813.3	838.1	852.7	851.6
145°	768.7	790.5	798.8	800.9
147.5°	732.5	748.0	756.3	757.3
150°	702.4	713.8	720.0	720.0
152.5°	675.5	685.9	689.0	689.0
155°	652.7	661.0	663.1	664.1
157.5°	632.0	638.2	640.3	640.3
160°	612.3	618.5	618.5	617.5
162.5°	592.6	597.8	597.8	596.8
165°	576.0	580.2	579.1	579.1
167.5°	559.5	562.6	561.5	561.5
170°	545.0	547.0	546.0	546.0
172.5°	532.5	534.6	532.5	531.5
175°	522.2	523.2	522.2	521.1
177.5°	514.9	515.9	513.9	513.9
180°	511.8	511.8	511.8	511.8

TEST NUMBER: P831635

CATALOG NUMBER: S123DIP-S775D1195U940-4F0-1E-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	13.70	14.49	14.71	15.50	16.84	15.94	16.72	16.94	17.73	19.08
	3H	15.34	16.05	16.36	17.07	18.43	17.36	18.06	18.37	19.08	20.44
	4H	15.92	16.58	16.94	17.61	18.98	17.80	18.47	18.83	19.49	20.86
	6H	16.28	16.90	17.32	17.92	19.31	18.08	18.69	19.11	19.72	21.10
	8H	16.38	16.96	17.42	18.00	19.38	18.14	18.72	19.18	19.76	21.14
	12H	16.42	16.98	17.47	18.01	19.41	18.15	18.71	19.20	19.74	21.15
4H	2H	14.27	14.93	15.30	15.96	17.33	16.09	16.76	17.13	17.78	19.15
	3H	16.09	16.64	17.13	17.70	19.08	17.70	18.26	18.75	19.31	20.69
	4H	16.78	17.29	17.83	18.34	19.74	18.29	18.79	19.33	19.84	21.24
	6H	17.26	17.69	18.31	18.76	20.16	18.69	19.12	19.74	20.19	21.59
	8H	17.39	17.80	18.45	18.86	20.27	18.80	19.20	19.85	20.26	21.68
	12H	17.45	17.82	18.53	18.90	20.32	18.84	19.21	19.91	20.28	21.70
8H	4H	17.05	17.45	18.10	18.51	19.93	18.39	18.79	19.44	19.85	21.27
	6H	17.63	17.97	18.71	19.07	20.48	18.89	19.22	19.97	20.32	21.74
	8H	17.84	18.13	18.93	19.22	20.65	19.06	19.36	20.15	20.44	21.88
	12H	17.96	18.22	19.05	19.30	20.77	19.16	19.42	20.26	20.50	21.97
12H	4H	17.04	17.41	18.12	18.48	19.90	18.36	18.73	19.43	19.80	21.22
	6H	17.68	17.98	18.77	19.06	20.49	18.90	19.19	19.99	20.28	21.71
	8H	17.91	18.17	19.00	19.25	20.72	19.10	19.35	20.19	20.43	21.91