

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: P831049

Luminaire Tested: S123DIP-S1000D1025U835-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831049  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S1000D1025U835-4F0-1E-UDD-G1  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: -

**Summary**

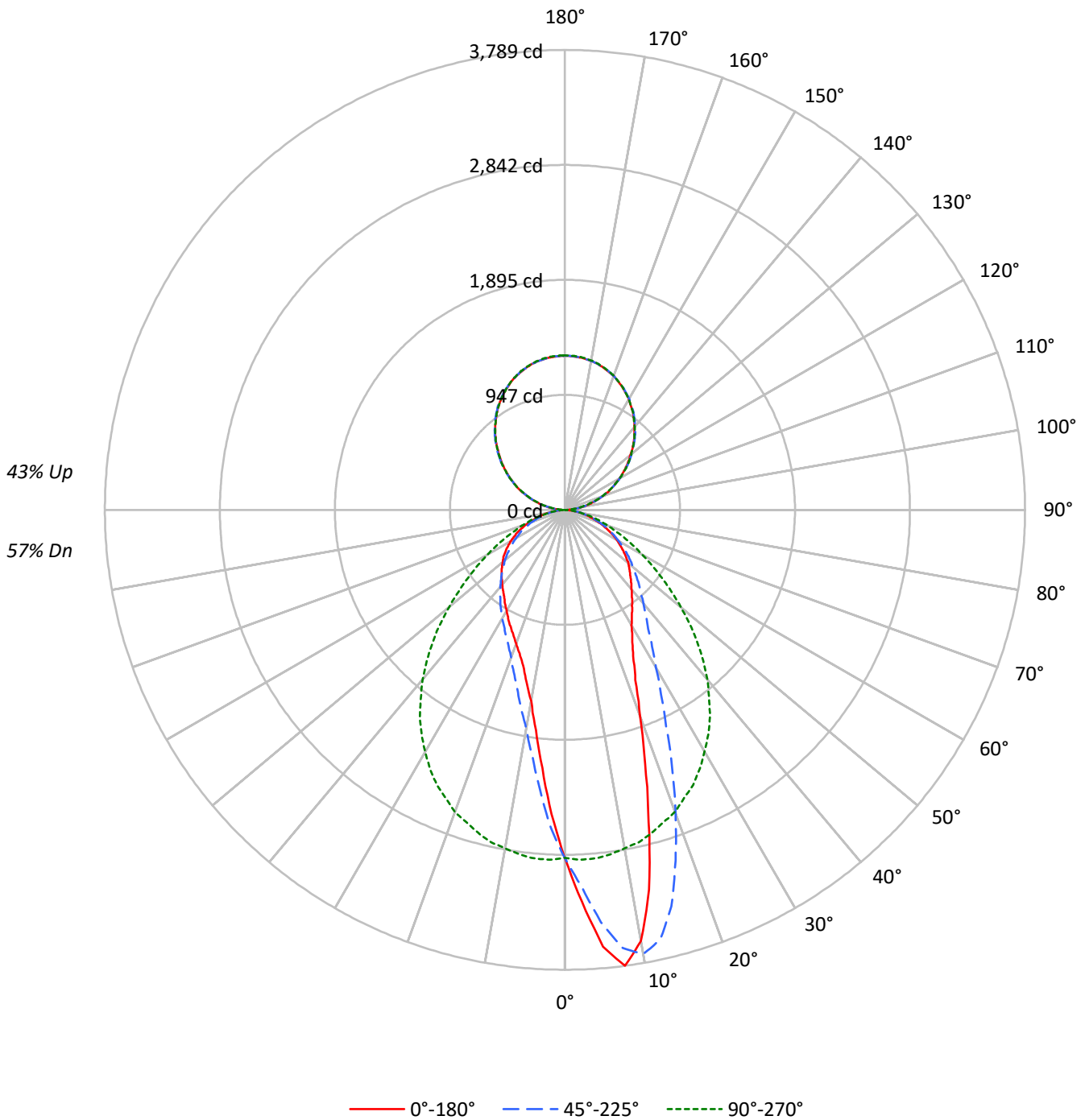
Lumens per Lamp: N/A  
Luminaire Lumens: 8133.8 lumens  
Efficiency: N/A  
Efficacy: 133.3 lumens/watt  
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 61  
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57				
1	100	96	92	89	93	89	86	83	77	75	73	66	64	63	56	55	54	49				
2	91	84	78	73	85	79	74	69	68	65	61	59	56	54	50	48	46	42				
3	84	75	68	62	78	70	64	59	61	56	52	53	49	46	45	42	40	36				
4	77	67	59	53	72	63	56	51	55	50	45	47	43	40	41	38	35	32				
5	71	60	52	46	66	56	49	44	49	44	40	43	39	35	37	34	31	28				
6	66	54	46	41	61	51	44	39	45	39	35	39	35	32	34	31	28	25				
7	61	49	42	36	57	46	40	35	41	36	31	36	32	28	31	28	25	23				
8	57	45	38	32	53	43	36	31	38	32	28	33	29	26	29	26	23	21				
9	53	41	34	29	50	39	33	28	35	30	26	31	27	23	27	24	21	19				
10	50	38	31	27	47	36	30	26	32	27	23	29	25	21	25	22	19	18				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	30870	30870	30870	30870	30870
5°	39041	36847	31147	25099	23064
10°	39419	40611	30938	20007	17484
15°	29690	37706	30729	16944	14785
20°	20686	30511	30336	14818	13431
25°	15775	23464	29667	13632	12598
30°	13646	18641	28599	12795	11926
35°	12661	15738	27367	12189	11454
40°	11987	14119	25638	11612	11294
45°	11587	13067	23440	11163	11224
50°	11387	12234	20837	10752	11164
55°	10963	11626	18282	10365	11213
60°	10572	10973	15756	10000	11031
65°	9931	10356	13593	9610	10812
70°	9171	9571	11560	8963	10178
75°	8301	8580	9906	8330	9299
80°	6850	7507	7835	7259	7835
85°	5422	6076	5755	6163	6249

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 26761 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.1	3.3
10°-20°	674.5	8.3
20°-30°	798.7	9.8
30°-40°	803.0	9.9
40°-50°	736.8	9.1
50°-60°	608.1	7.5
60°-70°	430.2	5.3
70°-80°	229.6	2.8
80°-90°	60.9	0.7
90°-100°	81.8	1.0
100°-110°	247.6	3.0
110°-120°	421.5	5.2
120°-130°	554.5	6.8
130°-140°	623.3	7.7
140°-150°	612.7	7.5
150°-160°	515.9	6.3
160°-170°	343.4	4.2
170°-180°	120.3	1.5
0°-30°	1744.3	21.4
0°-40°	2547.3	31.3
0°-60°	3892.2	47.9
0°-90°	4612.9	56.7
90°-120°	750.9	9.2
90°-150°	2541.3	31.2
90°-180°	3521.0	43.3
0°-180°	8133.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2868	2868	2868	2868	2868	
5°	3613	3410	2883	2323	2135	344
15°	2664	3384	2758	1520	1327	736
25°	1328	1976	2498	1148	1061	627
35°	964	1198	2083	928	872	605
45°	761	858	1540	733	737	590
55°	584	620	974	552	598	523
65°	390	407	534	377	424	387
75°	200	206	238	200	224	210
85°	44	49	47	50	51	49
90°	30	24	1	24	30	17
95°	78	74	59	74	78	78
105°	238	236	225	236	238	252
115°	425	425	424	425	425	421
125°	614	622	621	622	614	549
135°	805	810	806	810	805	619
145°	977	982	977	982	977	610
155°	1117	1120	1119	1120	1117	515
165°	1215	1216	1219	1216	1215	343
175°	1263	1264	1268	1264	1263	120
180°	1271	1271	1271	1271	1271	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9
2.5°	3232.6	3229.2	3225.9	3209.3	3192.6	3184.6	3176.7	3152.7	3128.8	3102.1	3075.5
5°	3613.2	3622.5	3631.8	3621.2	3610.5	3577.9	3545.3	3502.0	3458.8	3410.2	3361.6
7.5°	3788.8	3794.2	3799.5	3792.8	3786.2	3777.5	3768.9	3730.3	3691.7	3641.8	3591.9
10°	3606.5	3618.5	3630.5	3656.4	3682.4	3711.6	3740.9	3735.6	3730.3	3715.6	3701.0
12.5°	3205.9	3220.6	3235.2	3287.1	3339.0	3405.6	3472.1	3529.3	3586.6	3626.5	3666.4
15°	2664.3	2704.9	2745.5	2792.7	2840.0	2937.8	3035.6	3156.0	3276.5	3383.6	3490.7
17.5°	2194.5	2209.8	2225.1	2275.7	2326.3	2449.4	2572.5	2711.5	2850.6	3028.3	3205.9
20°	1805.9	1819.9	1833.9	1900.4	1966.9	2063.4	2159.9	2316.3	2472.7	2663.6	2854.6
22.5°	1517.1	1539.1	1561.0	1598.3	1635.6	1728.1	1820.6	1959.6	2098.7	2309.6	2520.6
25°	1328.2	1344.1	1360.1	1382.7	1405.3	1479.2	1553.1	1667.5	1782.0	1975.6	2169.2
27.5°	1199.1	1205.7	1212.4	1235.0	1257.6	1305.5	1353.4	1451.9	1550.4	1714.8	1879.1
30°	1097.9	1102.6	1107.2	1127.2	1147.2	1179.8	1212.4	1283.6	1354.8	1499.8	1644.9
32.5°	1027.4	1030.7	1034.0	1049.3	1064.7	1087.9	1111.2	1163.1	1215.0	1334.8	1454.6
35°	963.5	965.5	967.5	978.8	990.1	1007.4	1024.7	1064.0	1103.2	1197.7	1292.2
37.5°	907.6	910.3	912.9	919.6	926.2	941.6	956.9	988.1	1019.4	1091.9	1164.5
40°	853.1	857.7	862.4	867.0	871.7	884.3	897.0	920.9	944.9	1004.8	1064.7
42.5°	806.5	811.1	815.8	817.8	819.8	827.1	834.4	856.4	878.3	922.9	967.5
45°	761.2	763.2	765.2	767.2	769.2	775.2	781.2	800.5	819.8	858.4	897.0
47.5°	720.0	720.0	720.0	721.3	722.6	728.0	733.3	747.3	761.2	791.2	821.1
50°	680.0	680.0	680.0	678.1	676.1	679.4	682.7	693.4	704.0	730.6	757.2
52.5°	632.1	632.1	632.1	632.8	633.5	633.5	633.5	642.8	652.1	676.1	700.0
55°	584.2	586.9	589.6	587.6	585.6	586.9	588.2	594.2	600.2	619.5	638.8
57.5°	536.3	537.7	539.0	538.3	537.7	538.3	539.0	544.3	549.6	564.3	578.9
60°	491.1	491.1	491.1	489.7	488.4	489.7	491.1	493.7	496.4	509.7	523.0
62.5°	440.5	441.2	441.8	442.5	443.2	441.8	440.5	443.8	447.2	457.1	467.1
65°	389.9	390.6	391.3	393.3	395.3	393.9	392.6	395.9	399.2	406.6	413.9
67.5°	344.7	343.4	342.0	342.7	343.4	345.3	347.3	348.0	348.7	356.7	364.6
70°	291.4	292.8	294.1	293.4	292.8	293.4	294.1	296.1	298.1	304.1	310.1
72.5°	243.5	244.2	244.9	244.9	244.9	246.2	247.5	249.5	251.5	254.9	258.2
75°	199.6	199.6	199.6	201.0	202.3	202.9	203.6	203.6	203.6	206.3	208.9
77.5°	151.7	155.0	158.4	157.7	157.0	158.4	159.7	161.7	163.7	165.0	166.4
80°	110.5	110.5	110.5	111.1	111.8	113.8	115.8	117.1	118.4	121.1	123.8
82.5°	70.5	71.2	71.9	73.9	75.9	77.2	78.5	80.5	82.5	82.5	82.5
85°	43.9	42.6	41.3	42.6	43.9	45.2	46.6	47.2	47.9	49.2	50.6
87.5°	21.3	21.3	21.3	21.3	21.3	22.0	22.6	22.6	22.6	22.6	22.6
90°	29.9	29.5	29.1	28.6	28.2	27.5	26.6	25.7	24.8	24.0	21.1
92.5°	42.9	43.4	43.8	44.3	44.7	44.6	43.9	43.3	42.6	41.9	40.6
95°	77.9	77.9	77.9	77.9	77.9	77.4	76.5	75.6	74.8	73.9	72.1
97.5°	111.8	112.0	112.2	112.5	112.7	112.2	111.1	110.0	108.9	107.8	106.5
100°	151.7	151.3	150.8	150.4	150.0	149.4	148.7	148.1	147.4	146.7	145.6
102.5°	192.7	192.9	193.1	193.3	193.5	193.3	192.7	192.0	191.3	190.7	189.1
105°	237.6	237.1	236.7	236.2	235.8	235.6	235.6	235.6	235.6	235.6	233.6
107.5°	283.5	283.7	283.9	284.2	284.4	284.2	283.5	282.8	282.2	281.5	280.6
110°	330.4	330.9	331.3	331.7	332.2	332.0	331.1	330.2	329.3	328.4	328.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	380.3	380.3	380.3	380.3	380.3	379.8	378.7	377.5	376.4	375.3	375.3
115°	425.2	425.5	425.7	425.9	426.1	426.1	425.9	425.7	425.5	425.2	425.7
117.5°	471.2	471.8	472.5	473.2	473.8	474.1	474.1	474.1	474.1	474.1	474.6
120°	520.1	520.5	521.0	521.4	521.8	522.2	522.4	522.6	522.8	523.1	524.2
122.5°	567.0	567.6	568.3	569.0	569.6	570.3	571.0	571.6	572.3	573.0	573.4
125°	613.9	614.8	615.7	616.6	617.4	618.3	619.2	620.1	621.0	621.9	622.3
127.5°	660.8	661.7	662.6	663.5	664.4	665.5	666.8	668.1	669.5	670.8	671.2
130°	706.7	708.3	709.8	711.4	712.9	714.2	715.0	715.9	716.8	717.7	718.4
132.5°	754.6	755.8	756.9	758.0	759.1	760.2	761.3	762.4	763.5	764.6	765.1
135°	804.6	805.0	805.4	805.9	806.3	807.0	807.9	808.8	809.7	810.5	810.8
137.5°	848.5	849.1	849.8	850.5	851.1	852.0	853.1	854.2	855.4	856.5	855.8
140°	891.4	893.0	894.5	896.1	897.6	898.5	898.7	898.9	899.2	899.4	899.2
142.5°	935.3	936.4	937.5	938.6	939.8	940.4	940.6	940.9	941.1	941.3	940.9
145°	977.2	978.1	979.0	979.9	980.8	981.3	981.6	981.8	982.0	982.2	981.6
147.5°	1015.2	1016.5	1017.8	1019.2	1020.5	1021.2	1021.2	1021.2	1021.2	1021.2	1020.5
150°	1051.1	1052.4	1053.8	1055.1	1056.4	1057.1	1057.1	1057.1	1057.1	1057.1	1056.7
152.5°	1086.1	1087.2	1088.3	1089.4	1090.5	1090.8	1090.4	1089.9	1089.5	1089.0	1088.8
155°	1117.0	1118.5	1120.1	1121.7	1123.2	1123.5	1122.7	1121.8	1120.9	1120.0	1119.8
157.5°	1145.9	1147.3	1148.6	1149.9	1151.3	1151.5	1150.6	1149.7	1148.8	1147.9	1147.7
160°	1173.9	1174.8	1175.7	1176.6	1177.4	1177.3	1176.2	1175.1	1174.0	1172.9	1172.9
162.5°	1194.9	1196.4	1198.0	1199.5	1201.1	1201.3	1200.2	1199.1	1198.0	1196.9	1196.6
165°	1214.8	1216.4	1217.9	1219.5	1221.0	1221.1	1219.8	1218.5	1217.1	1215.8	1215.8
167.5°	1232.8	1234.1	1235.4	1236.8	1238.1	1238.1	1236.8	1235.4	1234.1	1232.8	1232.6
170°	1245.8	1247.3	1248.9	1250.4	1252.0	1252.0	1250.4	1248.9	1247.3	1245.8	1245.8
172.5°	1255.7	1257.3	1258.9	1260.4	1262.0	1262.1	1260.7	1259.4	1258.1	1256.7	1256.7
175°	1262.7	1264.3	1265.8	1267.4	1268.9	1269.1	1267.7	1266.4	1265.1	1263.7	1263.7
177.5°	1266.7	1268.3	1269.8	1271.4	1272.9	1273.0	1271.7	1270.4	1269.1	1267.7	1267.7
180°	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9
2.5°	3067.5	3059.5	3030.3	3001.0	2967.7	2934.5	2909.8	2885.2	2848.6	2812.0	2782.1
5°	3324.4	3287.1	3225.2	3163.4	3079.5	2995.7	2939.1	2882.6	2806.7	2730.8	2670.3
7.5°	3528.0	3464.1	3377.6	3291.1	3181.3	3071.5	2967.7	2863.9	2748.1	2632.4	2537.9
10°	3657.8	3614.5	3514.7	3414.9	3267.8	3120.8	2975.7	2830.6	2681.6	2532.5	2407.4
12.5°	3670.4	3674.4	3582.6	3490.7	3324.4	3158.0	2981.7	2805.4	2617.7	2430.1	2284.3
15°	3559.3	3627.8	3577.2	3526.7	3359.0	3191.3	2974.4	2757.5	2541.2	2324.9	2156.6
17.5°	3353.0	3500.0	3507.4	3514.7	3347.0	3179.3	2939.1	2698.9	2454.0	2209.2	2032.2
20°	3071.5	3288.4	3363.0	3437.5	3301.1	3164.7	2906.5	2648.3	2374.2	2100.0	1914.4
22.5°	2784.1	3047.6	3184.0	3320.4	3219.2	3118.1	2843.3	2568.5	2279.0	1989.6	1801.3
25°	2456.7	2744.1	2953.7	3163.4	3101.5	3039.6	2768.8	2497.9	2189.9	1881.8	1689.5
27.5°	2171.2	2463.3	2716.2	2969.1	2955.7	2942.4	2673.6	2404.8	2089.4	1774.0	1588.3
30°	1917.0	2189.2	2472.0	2754.8	2787.4	2820.0	2560.5	2301.0	1984.9	1668.8	1489.8
32.5°	1692.1	1929.7	2233.1	2536.5	2600.4	2664.3	2430.1	2195.8	1883.1	1570.4	1398.0
35°	1507.8	1723.4	2026.8	2330.3	2410.1	2490.0	2286.3	2082.7	1778.0	1473.2	1308.9
37.5°	1344.8	1525.1	1821.2	2117.3	2215.1	2313.0	2130.6	1948.3	1662.9	1377.4	1226.3
40°	1209.7	1354.8	1626.9	1899.1	2012.2	2125.3	1974.9	1824.6	1553.7	1282.9	1143.8
42.5°	1096.6	1225.7	1472.5	1719.4	1827.9	1936.3	1809.2	1682.2	1441.3	1200.4	1073.3
45°	1000.1	1103.2	1327.5	1551.7	1654.9	1758.0	1648.9	1539.8	1327.5	1115.2	996.8
47.5°	909.6	998.1	1189.8	1381.4	1473.2	1565.0	1479.9	1394.7	1215.0	1035.4	928.2
50°	828.4	899.6	1067.3	1235.0	1314.8	1394.7	1319.5	1244.3	1096.6	948.9	855.7
52.5°	757.9	815.8	956.2	1096.6	1165.1	1233.7	1169.1	1104.6	987.5	870.4	789.2
55°	688.0	737.3	859.0	980.8	1027.4	1074.0	1024.1	974.2	879.7	785.2	716.6
57.5°	622.8	666.7	766.6	866.4	902.3	938.2	893.0	847.7	776.5	705.3	648.1
60°	558.9	594.9	678.1	761.2	783.2	805.1	768.5	731.9	682.0	632.1	580.9
62.5°	499.7	532.3	594.2	656.1	670.7	685.4	657.4	629.5	591.5	553.6	513.7
65°	438.5	463.1	513.7	564.3	573.6	582.9	558.3	533.7	505.0	476.4	447.2
67.5°	381.9	399.2	440.5	481.8	482.4	483.1	463.1	443.2	427.2	411.2	387.9
70°	326.7	343.4	370.6	397.9	398.6	399.2	383.3	367.3	355.3	343.4	326.1
72.5°	270.2	282.1	302.8	323.4	322.1	320.7	310.7	300.8	291.4	282.1	269.5
75°	218.9	228.9	242.9	256.8	252.9	248.9	243.5	238.2	230.2	222.2	214.3
77.5°	172.3	178.3	186.3	194.3	191.6	189.0	184.3	179.7	173.7	167.7	164.4
80°	126.4	129.1	134.4	139.7	138.4	137.1	131.8	126.4	125.1	123.8	119.1
82.5°	85.8	89.2	90.5	91.8	91.2	90.5	86.5	82.5	81.2	79.8	79.2
85°	51.2	51.9	52.6	53.2	51.2	49.2	47.9	46.6	46.6	46.6	45.9
87.5°	23.3	24.0	24.0	24.0	23.3	22.6	21.3	20.0	20.6	21.3	21.3
90°	18.2	15.3	12.4	9.9	7.7	5.4	3.2	1.0	3.2	5.4	7.7
92.5°	39.3	37.9	36.6	35.3	33.9	32.6	31.3	29.9	31.3	32.6	33.9
95°	70.3	68.5	66.8	65.1	63.6	62.0	60.4	58.9	60.4	62.0	63.6
97.5°	105.1	103.8	102.5	101.3	100.2	99.0	97.9	96.8	97.9	99.0	100.2
100°	144.5	143.4	142.3	141.1	139.7	138.4	137.1	135.8	137.1	138.4	139.7
102.5°	187.6	186.0	184.4	183.3	182.7	182.0	181.3	180.7	181.3	182.0	182.7
105°	231.6	229.6	227.6	226.4	225.9	225.5	225.0	224.6	225.0	225.5	225.9
107.5°	279.7	278.8	277.9	277.4	277.2	276.9	276.7	276.5	276.7	276.9	277.2
110°	327.5	327.1	326.6	326.2	325.7	325.3	324.9	324.4	324.9	325.3	325.7





TEST NUMBER: P831049

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	375.3	375.3	375.3	375.2	375.0	374.8	374.5	374.3	374.5	374.8	375.0
115°	426.1	426.6	427.0	426.9	426.2	425.6	424.9	424.2	424.9	425.6	426.2
117.5°	475.0	475.5	475.9	476.0	475.8	475.6	475.4	475.1	475.4	475.6	475.8
120°	525.3	526.4	527.5	527.4	526.1	524.7	523.4	522.1	523.4	524.7	526.1
122.5°	573.9	574.3	574.7	574.5	573.6	572.7	571.9	571.0	571.9	572.7	573.6
125°	622.8	623.2	623.7	623.5	622.9	622.2	621.6	620.9	621.6	622.2	622.9
127.5°	671.7	672.1	672.6	672.1	670.8	669.5	668.1	666.8	668.1	669.5	670.8
130°	719.0	719.7	720.4	719.8	718.0	716.3	714.5	712.7	714.5	716.3	718.0
132.5°	765.5	766.0	766.4	765.7	764.0	762.2	760.4	758.6	760.4	762.2	764.0
135°	811.0	811.2	811.4	810.9	809.5	808.2	806.9	805.6	806.9	808.2	809.5
137.5°	855.1	854.5	853.8	852.9	851.8	850.7	849.6	848.5	849.6	850.7	851.8
140°	898.9	898.7	898.5	897.8	896.7	895.6	894.5	893.4	894.5	895.6	896.7
142.5°	940.4	940.0	939.5	938.8	937.7	936.5	935.4	934.3	935.4	936.5	937.7
145°	980.9	980.2	979.6	979.0	978.6	978.1	977.7	977.2	977.7	978.1	978.6
147.5°	1019.8	1019.2	1018.5	1017.7	1016.8	1016.0	1015.1	1014.2	1015.1	1016.0	1016.8
150°	1056.2	1055.8	1055.3	1054.9	1054.4	1054.0	1053.6	1053.1	1053.6	1054.0	1054.4
152.5°	1088.6	1088.4	1088.2	1087.7	1087.0	1086.4	1085.7	1085.1	1085.7	1086.4	1087.0
155°	1119.5	1119.3	1119.1	1119.0	1119.0	1119.0	1119.0	1119.0	1119.0	1119.0	1119.0
157.5°	1147.5	1147.3	1147.1	1147.1	1147.3	1147.5	1147.7	1147.9	1147.7	1147.5	1147.3
160°	1172.9	1172.9	1172.9	1173.1	1173.6	1174.0	1174.4	1174.9	1174.4	1174.0	1173.6
162.5°	1196.4	1196.2	1196.0	1196.2	1196.9	1197.5	1198.2	1198.8	1198.2	1197.5	1196.9
165°	1215.8	1215.8	1215.8	1216.2	1216.8	1217.5	1218.1	1218.8	1218.1	1217.5	1216.8
167.5°	1232.3	1232.1	1231.9	1232.2	1233.1	1234.0	1234.9	1235.8	1234.9	1234.0	1233.1
170°	1245.8	1245.8	1245.8	1246.2	1247.1	1248.0	1248.9	1249.8	1248.9	1248.0	1247.1
172.5°	1256.7	1256.7	1256.7	1257.2	1258.1	1259.0	1259.8	1260.7	1259.8	1259.0	1258.1
175°	1263.7	1263.7	1263.7	1264.2	1265.1	1265.9	1266.8	1267.7	1266.8	1265.9	1265.1
177.5°	1267.7	1267.7	1267.7	1268.2	1269.1	1269.9	1270.8	1271.7	1270.8	1269.9	1269.1
180°	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7



TEST NUMBER: P831049

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9	2867.9
2.5°	2752.1	2726.2	2700.2	2680.3	2660.3	2626.4	2592.4	2584.4	2576.5	2565.2	2553.8
5°	2609.7	2545.9	2482.0	2424.7	2367.5	2322.9	2278.4	2249.1	2219.8	2198.5	2177.2
7.5°	2443.4	2347.6	2251.7	2183.9	2116.0	2051.5	1986.9	1966.3	1945.7	1917.7	1889.8
10°	2282.4	2176.6	2070.8	1982.3	1893.8	1830.5	1767.3	1742.0	1716.8	1681.5	1646.2
12.5°	2138.6	2022.8	1907.1	1817.9	1728.7	1667.5	1606.3	1569.7	1533.1	1513.1	1493.2
15°	1988.2	1864.5	1740.7	1658.2	1575.7	1520.5	1465.2	1433.3	1401.4	1382.1	1362.8
17.5°	1855.2	1732.7	1610.3	1531.1	1451.9	1401.4	1350.8	1322.8	1294.9	1280.2	1265.6
20°	1728.7	1609.0	1489.2	1412.0	1334.8	1293.6	1252.3	1234.3	1216.4	1204.4	1192.4
22.5°	1613.0	1495.2	1377.4	1311.5	1245.6	1212.4	1179.1	1166.5	1153.8	1143.8	1133.9
25°	1497.2	1392.0	1286.9	1231.0	1175.1	1147.8	1120.5	1107.9	1095.3	1085.3	1075.3
27.5°	1402.7	1302.2	1201.7	1153.8	1105.9	1084.6	1063.3	1053.3	1043.4	1034.0	1024.7
30°	1310.9	1221.0	1131.2	1089.9	1048.7	1029.4	1010.1	1000.1	990.1	981.5	972.8
32.5°	1225.7	1148.5	1071.3	1033.4	995.5	979.5	963.5	951.5	939.6	932.9	926.2
35°	1144.5	1075.3	1006.1	974.8	943.5	927.6	911.6	901.6	891.6	886.3	881.0
37.5°	1075.3	1013.4	951.5	921.6	891.6	876.3	861.0	852.4	843.7	841.7	839.7
40°	1004.8	951.5	898.3	869.0	839.7	826.4	813.1	807.8	802.5	801.2	799.8
42.5°	946.2	894.3	842.4	815.8	789.2	777.9	766.6	763.9	761.2	763.2	765.2
45°	878.3	835.1	791.8	767.2	742.6	733.3	724.0	722.0	720.0	724.0	728.0
47.5°	821.1	781.2	741.3	718.0	694.7	688.0	681.4	680.7	680.0	685.4	690.7
50°	762.6	724.0	685.4	666.7	648.1	642.1	636.1	638.1	640.1	648.8	657.4
52.5°	708.0	672.1	636.1	618.8	601.5	597.5	593.5	598.2	602.9	612.2	621.5
55°	648.1	615.5	582.9	569.6	556.3	552.3	548.3	557.6	566.9	575.6	584.2
57.5°	590.9	562.3	533.7	521.7	509.7	509.0	508.4	517.0	525.7	535.0	544.3
60°	529.7	505.7	481.8	472.4	463.1	464.5	465.8	475.8	485.7	493.1	500.4
62.5°	473.8	453.8	433.8	425.2	416.5	419.9	423.2	433.2	443.2	451.8	460.5
65°	417.9	401.2	384.6	378.6	372.6	377.3	381.9	390.6	399.2	405.2	411.2
67.5°	364.6	350.7	336.7	332.0	327.4	332.0	336.7	345.3	354.0	360.0	366.0
70°	308.7	297.4	286.1	282.8	279.5	284.8	290.1	297.4	304.8	310.7	316.7
72.5°	256.8	248.2	239.5	238.9	238.2	242.9	247.5	254.9	262.2	266.2	270.2
75°	206.3	201.6	197.0	196.3	195.6	200.3	204.9	208.9	212.9	216.3	219.6
77.5°	161.0	157.0	153.0	153.7	154.4	157.7	161.0	165.0	169.0	171.0	173.0
80°	114.5	113.1	111.8	113.1	114.5	117.1	119.8	122.4	125.1	126.4	127.8
82.5°	78.5	77.2	75.9	77.9	79.8	81.8	83.8	85.8	87.8	88.5	89.2
85°	45.2	47.2	49.2	49.2	49.2	49.9	50.6	51.2	51.9	51.2	50.6
87.5°	21.3	22.0	22.6	22.6	22.6	23.3	24.0	24.0	24.0	23.3	22.6
90°	9.9	12.4	15.3	18.2	21.1	24.0	24.8	25.7	26.6	27.5	28.2
92.5°	35.3	36.6	37.9	39.3	40.6	41.9	42.6	43.3	43.9	44.6	44.7
95°	65.1	66.8	68.5	70.3	72.1	73.9	74.8	75.6	76.5	77.4	77.9
97.5°	101.3	102.5	103.8	105.1	106.5	107.8	108.9	110.0	111.1	112.2	112.7
100°	141.1	142.3	143.4	144.5	145.6	146.7	147.4	148.1	148.7	149.4	150.0
102.5°	183.3	184.4	186.0	187.6	189.1	190.7	191.3	192.0	192.7	193.3	193.5
105°	226.4	227.6	229.6	231.6	233.6	235.6	235.6	235.6	235.6	235.6	235.8
107.5°	277.4	277.9	278.8	279.7	280.6	281.5	282.2	282.8	283.5	284.2	284.4
110°	326.2	326.6	327.1	327.5	328.0	328.4	329.3	330.2	331.1	332.0	332.2



TEST NUMBER: P831049

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	375.2	375.3	375.3	375.3	375.3	375.3	376.4	377.5	378.7	379.8	380.3
115°	426.9	427.0	426.6	426.1	425.7	425.2	425.5	425.7	425.9	426.1	426.1
117.5°	476.0	475.9	475.5	475.0	474.6	474.1	474.1	474.1	474.1	474.1	473.8
120°	527.4	527.5	526.4	525.3	524.2	523.1	522.8	522.6	522.4	522.2	521.8
122.5°	574.5	574.7	574.3	573.9	573.4	573.0	572.3	571.6	571.0	570.3	569.6
125°	623.5	623.7	623.2	622.8	622.3	621.9	621.0	620.1	619.2	618.3	617.4
127.5°	672.1	672.6	672.1	671.7	671.2	670.8	669.5	668.1	666.8	665.5	664.4
130°	719.8	720.4	719.7	719.0	718.4	717.7	716.8	715.9	715.0	714.2	712.9
132.5°	765.7	766.4	766.0	765.5	765.1	764.6	763.5	762.4	761.3	760.2	759.1
135°	810.9	811.4	811.2	811.0	810.8	810.5	809.7	808.8	807.9	807.0	806.3
137.5°	852.9	853.8	854.5	855.1	855.8	856.5	855.4	854.2	853.1	852.0	851.1
140°	897.8	898.5	898.7	898.9	899.2	899.4	899.2	898.9	898.7	898.5	897.6
142.5°	938.8	939.5	940.0	940.4	940.9	941.3	941.1	940.9	940.6	940.4	939.8
145°	979.0	979.6	980.2	980.9	981.6	982.2	982.0	981.8	981.6	981.3	980.8
147.5°	1017.7	1018.5	1019.2	1019.8	1020.5	1021.2	1021.2	1021.2	1021.2	1021.2	1020.5
150°	1054.9	1055.3	1055.8	1056.2	1056.7	1057.1	1057.1	1057.1	1057.1	1057.1	1056.4
152.5°	1087.7	1088.2	1088.4	1088.6	1088.8	1089.0	1089.5	1089.9	1090.4	1090.8	1090.5
155°	1119.0	1119.1	1119.3	1119.5	1119.8	1120.0	1120.9	1121.8	1122.7	1123.5	1123.2
157.5°	1147.1	1147.1	1147.3	1147.5	1147.7	1147.9	1148.8	1149.7	1150.6	1151.5	1151.3
160°	1173.1	1172.9	1172.9	1172.9	1172.9	1172.9	1174.0	1175.1	1176.2	1177.3	1177.4
162.5°	1196.2	1196.0	1196.2	1196.4	1196.6	1196.9	1198.0	1199.1	1200.2	1201.3	1201.1
165°	1216.2	1215.8	1215.8	1215.8	1215.8	1215.8	1217.1	1218.5	1219.8	1221.1	1221.0
167.5°	1232.2	1231.9	1232.1	1232.3	1232.6	1232.8	1234.1	1235.4	1236.8	1238.1	1238.1
170°	1246.2	1245.8	1245.8	1245.8	1245.8	1245.8	1247.3	1248.9	1250.4	1252.0	1252.0
172.5°	1257.2	1256.7	1256.7	1256.7	1256.7	1256.7	1258.1	1259.4	1260.7	1262.1	1262.0
175°	1264.2	1263.7	1263.7	1263.7	1263.7	1263.7	1265.1	1266.4	1267.7	1269.1	1268.9
177.5°	1268.2	1267.7	1267.7	1267.7	1267.7	1267.7	1269.1	1270.4	1271.7	1273.0	1272.9
180°	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7



TEST NUMBER: P831049

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2867.9	2867.9	2867.9	2867.9
2.5°	2549.2	2544.5	2525.9	2507.3
5°	2161.2	2145.3	2140.0	2134.6
7.5°	1888.4	1887.1	1859.2	1831.2
10°	1648.2	1650.2	1624.9	1599.6
12.5°	1476.5	1459.9	1457.9	1455.9
15°	1347.5	1332.1	1329.5	1326.8
17.5°	1256.3	1247.0	1244.3	1241.7
20°	1187.1	1181.8	1177.1	1172.5
22.5°	1127.2	1120.5	1116.6	1112.6
25°	1069.3	1063.3	1062.0	1060.7
27.5°	1017.4	1010.1	1010.1	1010.1
30°	968.2	963.5	961.5	959.5
32.5°	922.3	918.3	918.3	918.3
35°	879.0	877.0	874.3	871.7
37.5°	839.7	839.7	838.4	837.1
40°	801.8	803.8	803.8	803.8
42.5°	767.2	769.2	769.2	769.2
45°	731.3	734.6	735.9	737.3
47.5°	696.0	701.3	702.7	704.0
50°	661.4	665.4	666.1	666.7
52.5°	626.1	630.8	634.1	637.5
55°	588.9	593.5	595.5	597.5
57.5°	549.0	553.6	554.3	555.0
60°	505.0	509.7	511.0	512.4
62.5°	463.1	465.8	467.1	468.4
65°	415.2	419.2	421.9	424.5
67.5°	369.3	372.6	372.6	372.6
70°	318.1	319.4	321.4	323.4
72.5°	270.8	271.5	271.5	271.5
75°	220.9	222.2	222.9	223.6
77.5°	173.7	174.3	174.3	174.3
80°	127.1	126.4	126.4	126.4
82.5°	87.2	85.2	85.2	85.2
85°	49.9	49.2	49.9	50.6
87.5°	22.6	22.6	22.6	22.6
90°	28.6	29.1	29.5	29.9
92.5°	44.3	43.8	43.4	42.9
95°	77.9	77.9	77.9	77.9
97.5°	112.5	112.2	112.0	111.8
100°	150.4	150.8	151.3	151.7
102.5°	193.3	193.1	192.9	192.7
105°	236.2	236.7	237.1	237.6
107.5°	284.2	283.9	283.7	283.5
110°	331.7	331.3	330.9	330.4



TEST NUMBER: P831049

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	380.3	380.3	380.3	380.3
115°	425.9	425.7	425.5	425.2
117.5°	473.2	472.5	471.8	471.2
120°	521.4	521.0	520.5	520.1
122.5°	569.0	568.3	567.6	567.0
125°	616.6	615.7	614.8	613.9
127.5°	663.5	662.6	661.7	660.8
130°	711.4	709.8	708.3	706.7
132.5°	758.0	756.9	755.8	754.6
135°	805.9	805.4	805.0	804.6
137.5°	850.5	849.8	849.1	848.5
140°	896.1	894.5	893.0	891.4
142.5°	938.6	937.5	936.4	935.3
145°	979.9	979.0	978.1	977.2
147.5°	1019.2	1017.8	1016.5	1015.2
150°	1055.1	1053.8	1052.4	1051.1
152.5°	1089.4	1088.3	1087.2	1086.1
155°	1121.7	1120.1	1118.5	1117.0
157.5°	1149.9	1148.6	1147.3	1145.9
160°	1176.6	1175.7	1174.8	1173.9
162.5°	1199.5	1198.0	1196.4	1194.9
165°	1219.5	1217.9	1216.4	1214.8
167.5°	1236.8	1235.4	1234.1	1232.8
170°	1250.4	1248.9	1247.3	1245.8
172.5°	1260.4	1258.9	1257.3	1255.7
175°	1267.4	1265.8	1264.3	1262.7
177.5°	1271.4	1269.8	1268.3	1266.7
180°	1270.7	1270.7	1270.7	1270.7



TEST NUMBER: P831049

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-G1

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.09	16.97	17.00	17.89	19.07	18.33	19.21	19.23	20.13	21.30
	3H	17.74	18.53	18.66	19.46	20.66	19.75	20.54	20.67	21.47	22.67
	4H	18.32	19.06	19.25	20.00	21.21	20.20	20.95	21.14	21.88	23.09
	6H	18.69	19.38	19.63	20.32	21.54	20.48	21.17	21.42	22.11	23.33
	8H	18.79	19.44	19.74	20.40	21.62	20.54	21.20	21.49	22.15	23.37
	12H	18.83	19.45	19.79	20.40	21.65	20.56	21.19	21.52	22.14	23.38
4H	2H	16.67	17.41	17.60	18.35	19.56	18.49	19.24	19.43	20.17	21.38
	3H	18.50	19.12	19.44	20.08	21.31	20.11	20.73	21.06	21.70	22.92
	4H	19.20	19.76	20.15	20.72	21.97	20.70	21.26	21.65	22.22	23.47
	6H	19.67	20.16	20.64	21.14	22.39	21.10	21.59	22.07	22.57	23.82
	8H	19.81	20.27	20.78	21.24	22.50	21.22	21.67	22.19	22.65	23.91
	12H	19.88	20.29	20.87	21.28	22.55	21.26	21.67	22.25	22.66	23.93
8H	4H	19.46	19.92	20.44	20.90	22.16	20.81	21.26	21.78	22.24	23.50
	6H	20.05	20.43	21.05	21.45	22.71	21.31	21.68	22.31	22.70	23.96
	8H	20.26	20.59	21.27	21.60	22.88	21.49	21.82	22.49	22.83	24.10
	12H	20.39	20.68	21.39	21.68	23.00	21.59	21.88	22.60	22.88	24.21
12H	4H	19.47	19.88	20.46	20.87	22.14	20.78	21.19	21.77	22.18	23.45
	6H	20.10	20.44	21.11	21.44	22.72	21.32	21.65	22.33	22.66	23.94
	8H	20.34	20.63	21.35	21.63	22.96	21.52	21.81	22.53	22.81	24.14