

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: P831642

Luminaire Tested: S123DIP-S775D365U835-4F0-1E-UDD-G

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831642  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S775D365U835-4F0-1E-UDD-G  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: -

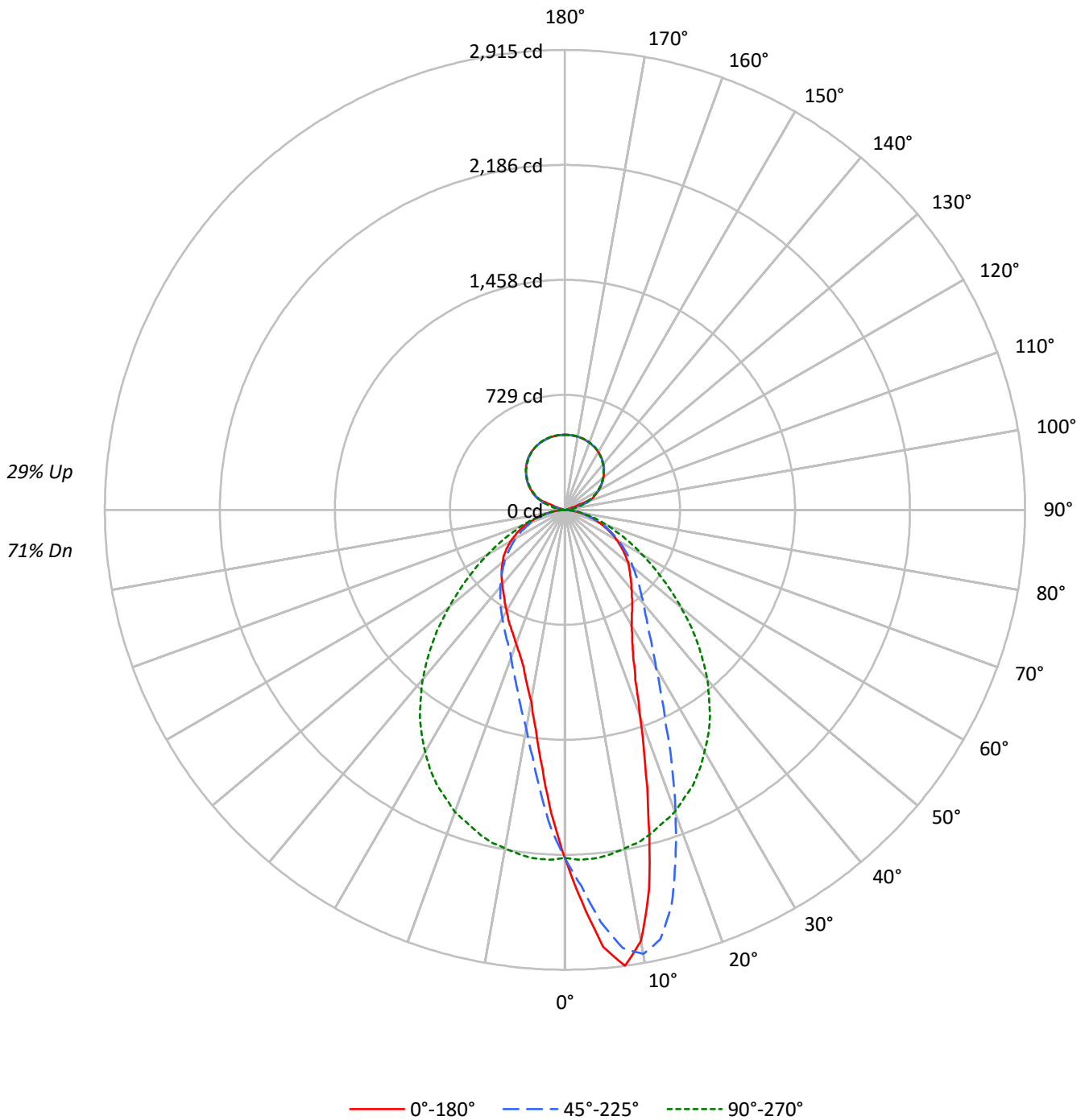
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4997.7 lumens  
Efficiency: N/A  
Efficacy: 139.2 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): 35.9  
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	50	30	10	50	30	10	50	30	10	0				
RCR																																		
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	71				
1	103	99	95	92	98	94	91	88	84	82	80	76	74	72	68	66	65	65	65	65	65	65	65	65	65	65	65	65	65	61				
2	95	87	81	76	89	83	78	73	75	71	67	68	64	62	61	58	56	56	56	56	56	56	56	56	56	56	56	56	56	53				
3	87	78	71	65	82	74	68	62	67	62	58	61	57	53	55	51	49	49	49	49	49	49	49	49	49	49	49	49	49	46				
4	80	70	62	56	76	66	59	54	60	55	50	55	50	46	49	46	43	43	43	43	43	43	43	43	43	43	43	43	43	40				
5	74	63	55	49	70	60	53	47	55	49	44	50	45	41	45	41	38	38	38	38	38	38	38	38	38	38	38	38	38	35				
6	69	57	49	43	65	54	47	42	50	44	39	45	40	37	41	37	34	34	34	34	34	34	34	34	34	34	34	34	34	32				
7	64	52	44	39	61	50	43	37	46	40	35	42	37	33	38	34	31	31	31	31	31	31	31	31	31	31	31	31	31	29				
8	60	48	40	35	57	46	39	34	42	36	32	39	34	30	35	31	28	28	28	28	28	28	28	28	28	28	28	28	28	26				
9	56	44	36	31	53	42	35	31	39	33	29	36	31	27	33	29	26	26	26	26	26	26	26	26	26	26	26	26	26	24				
10	53	41	34	29	50	39	33	28	36	31	27	34	29	25	31	27	24	24	24	24	24	24	24	24	24	24	24	24	24	22				

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

	0°	45°	90°	135°	180°
0°	23750	23750	23750	23750	23750
5°	30035	28348	23961	19310	17744
10°	30326	31243	23802	15393	13450
15°	22841	29008	23640	13035	11375
20°	15914	23473	23338	11400	10332
25°	12136	18051	22823	10488	9691
30°	10499	14342	22002	9843	9175
35°	9741	12107	21055	9377	8812
40°	9222	10862	19724	8934	8689
45°	8914	10053	18033	8587	8634
50°	8761	9413	16031	8272	8589
55°	8435	8944	14063	7974	8627
60°	8133	8441	12122	7692	8486
65°	7641	7967	10458	7394	8318
70°	7056	7361	8894	6895	7830
75°	6388	6600	7623	6409	7153
80°	5269	5777	6031	5585	6031
85°	4174	4681	4421	4742	4804

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 20588 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	208.6	4.2
10°-20°	518.9	10.4
20°-30°	614.4	12.3
30°-40°	617.8	12.4
40°-50°	566.8	11.3
50°-60°	467.8	9.4
60°-70°	330.9	6.6
70°-80°	176.7	3.5
80°-90°	45.8	0.9
90°-100°	16.8	0.3
100°-110°	81.1	1.6
110°-120°	198.7	4.0
120°-130°	252.3	5.0
130°-140°	269.5	5.4
140°-150°	252.0	5.0
150°-160°	203.3	4.1
160°-170°	131.2	2.6
170°-180°	45.2	0.9
0°-30°	1341.9	26.9
0°-40°	1959.7	39.2
0°-60°	2994.4	59.9
0°-90°	3547.7	71.0
90°-120°	296.5	5.9
90°-150°	1070.3	21.4
90°-180°	1450.0	29.0
0°-180°	4997.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2206	2206	2206	2206	2206	
5°	2780	2624	2218	1787	1642	265
15°	2050	2603	2121	1170	1021	566
25°	1022	1520	1922	883	816	482
35°	741	921	1602	714	671	466
45°	586	660	1185	564	567	454
55°	450	477	749	425	460	402
65°	300	313	411	290	327	298
75°	154	159	183	154	172	161
85°	34	38	36	38	39	38
90°	11	8	0	8	11	7
95°	13	11	22	11	13	11
105°	16	77	105	77	16	32
115°	208	203	198	203	208	195
125°	284	283	278	283	284	254
135°	350	350	347	350	350	270
145°	404	403	400	403	404	252
155°	440	440	441	440	440	203
165°	464	463	465	463	464	131
175°	474	474	476	474	474	45
180°	476	476	476	476	476	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4
2.5°	2486.9	2484.3	2481.8	2469.0	2456.2	2450.0	2443.9	2425.5	2407.0	2386.5	2366.1
5°	2779.7	2786.9	2794.0	2785.8	2777.7	2752.6	2727.5	2694.2	2660.9	2623.6	2586.2
7.5°	2914.8	2918.9	2923.0	2917.9	2912.8	2906.1	2899.5	2869.8	2840.1	2801.7	2763.3
10°	2774.6	2783.8	2793.0	2813.0	2832.9	2855.5	2878.0	2873.9	2869.8	2858.5	2847.3
12.5°	2466.4	2477.7	2488.9	2528.9	2568.8	2620.0	2671.2	2715.2	2759.2	2789.9	2820.7
15°	2049.7	2080.9	2112.2	2148.5	2184.9	2260.1	2335.4	2428.0	2520.7	2603.1	2685.5
17.5°	1688.3	1700.1	1711.8	1750.7	1789.7	1884.4	1979.1	2086.1	2193.0	2329.7	2466.4
20°	1389.3	1400.1	1410.8	1462.0	1513.2	1587.4	1661.7	1782.0	1902.3	2049.2	2196.1
22.5°	1167.2	1184.1	1201.0	1229.6	1258.3	1329.4	1400.6	1507.6	1614.6	1776.9	1939.1
25°	1021.8	1034.1	1046.4	1063.8	1081.2	1138.0	1194.8	1282.9	1370.9	1519.9	1668.8
27.5°	922.5	927.6	932.7	950.1	967.5	1004.4	1041.2	1117.0	1192.8	1319.2	1445.6
30°	844.7	848.2	851.8	867.2	882.5	907.6	932.7	987.5	1042.3	1153.9	1265.5
32.5°	790.4	793.0	795.5	807.3	819.1	837.0	854.9	894.8	934.8	1026.9	1119.0
35°	741.3	742.8	744.3	753.0	761.7	775.0	788.3	818.6	848.8	921.4	994.1
37.5°	698.3	700.3	702.3	707.5	712.6	724.4	736.1	760.2	784.3	840.1	895.9
40°	656.3	659.9	663.4	667.0	670.6	680.3	690.1	708.5	726.9	773.0	819.1
42.5°	620.4	624.0	627.6	629.1	630.7	636.3	641.9	658.8	675.7	710.0	744.3
45°	585.6	587.2	588.7	590.2	591.8	596.4	601.0	615.8	630.7	660.4	690.1
47.5°	553.9	553.9	553.9	554.9	555.9	560.0	564.1	574.9	585.6	608.7	631.7
50°	523.2	523.2	523.2	521.6	520.1	522.7	525.2	533.4	541.6	562.1	582.6
52.5°	486.3	486.3	486.3	486.8	487.3	487.3	487.3	494.5	501.7	520.1	538.5
55°	449.5	451.5	453.6	452.0	450.5	451.5	452.5	457.1	461.7	476.6	491.4
57.5°	412.6	413.6	414.7	414.1	413.6	414.1	414.7	418.7	422.8	434.1	445.4
60°	377.8	377.8	377.8	376.8	375.7	376.8	377.8	379.8	381.9	392.1	402.4
62.5°	338.9	339.4	339.9	340.4	340.9	339.9	338.9	341.4	344.0	351.7	359.4
65°	300.0	300.5	301.0	302.5	304.1	303.1	302.0	304.6	307.1	312.8	318.4
67.5°	265.2	264.1	263.1	263.6	264.1	265.7	267.2	267.7	268.2	274.4	280.5
70°	224.2	225.2	226.3	225.8	225.2	225.8	226.3	227.8	229.3	233.9	238.6
72.5°	187.4	187.9	188.4	188.4	188.4	189.4	190.4	192.0	193.5	196.1	198.6
75°	153.6	153.6	153.6	154.6	155.6	156.1	156.6	156.6	156.6	158.7	160.7
77.5°	116.7	119.3	121.8	121.3	120.8	121.8	122.9	124.4	125.9	127.0	128.0
80°	85.0	85.0	85.0	85.5	86.0	87.5	89.1	90.1	91.1	93.2	95.2
82.5°	54.3	54.8	55.3	56.8	58.4	59.4	60.4	61.9	63.5	63.5	63.5
85°	33.8	32.8	31.7	32.8	33.8	34.8	35.8	36.3	36.9	37.9	38.9
87.5°	16.4	16.4	16.4	16.4	16.4	16.9	17.4	17.4	17.4	17.4	17.4
90°	10.6	10.4	10.3	10.1	10.0	9.7	9.4	9.1	8.8	8.5	7.5
92.5°	12.0	11.9	11.9	11.8	11.7	11.4	10.8	10.3	9.7	9.2	8.5
95°	13.4	13.4	13.4	13.4	13.4	13.2	12.6	12.1	11.5	11.0	10.1
97.5°	14.5	14.4	14.3	14.3	14.2	13.8	13.2	12.6	11.9	11.3	15.3
100°	14.8	14.8	14.7	14.6	14.5	14.2	13.5	12.9	12.3	11.7	23.9
102.5°	15.2	15.0	14.9	14.7	14.6	15.8	18.4	21.0	23.6	26.1	39.8
105°	15.5	15.4	15.2	15.1	14.9	21.8	35.7	49.6	63.5	77.4	84.5
107.5°	36.8	47.0	57.3	67.6	77.9	89.1	101.2	113.3	125.4	137.5	136.3
110°	97.2	108.4	119.6	130.9	142.1	149.0	151.6	154.2	156.8	159.4	158.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	184.1	184.3	184.4	184.6	184.7	184.5	183.8	183.0	182.3	181.6	180.8
115°	207.8	207.5	207.2	206.8	206.5	206.0	205.2	204.4	203.6	202.8	202.1
117.5°	226.9	226.8	226.7	226.6	226.5	226.2	225.6	224.9	224.3	223.7	223.3
120°	246.7	246.7	246.7	246.7	246.7	246.3	245.7	245.1	244.5	243.8	243.6
122.5°	266.1	266.0	265.9	265.9	265.8	265.5	265.1	264.8	264.4	264.0	263.7
125°	284.1	284.0	283.8	283.6	283.5	283.3	283.2	283.0	282.9	282.7	282.4
127.5°	301.8	301.9	302.1	302.2	302.4	302.4	302.1	301.9	301.7	301.4	301.0
130°	318.7	318.9	319.1	319.2	319.4	319.3	319.0	318.7	318.3	318.0	317.7
132.5°	334.3	334.5	334.8	335.0	335.2	335.2	334.9	334.6	334.2	333.9	333.7
135°	350.2	350.4	350.7	350.9	351.1	351.1	350.9	350.7	350.4	350.2	349.9
137.5°	365.4	365.5	365.7	365.9	366.0	365.9	365.5	365.1	364.7	364.3	364.2
140°	378.8	379.0	379.1	379.3	379.4	379.4	379.0	378.7	378.4	378.1	377.9
142.5°	391.2	391.4	391.7	391.9	392.1	392.1	391.9	391.7	391.4	391.2	390.9
145°	403.9	403.9	403.9	403.9	403.9	403.8	403.7	403.5	403.4	403.2	403.0
147.5°	413.1	413.5	413.9	414.3	414.7	414.8	414.6	414.5	414.3	414.1	414.0
150°	423.7	423.9	424.2	424.4	424.6	424.7	424.5	424.4	424.2	424.0	423.9
152.5°	432.2	432.6	433.0	433.3	433.7	433.8	433.5	433.2	432.8	432.5	432.4
155°	439.9	440.4	440.9	441.4	441.8	441.9	441.5	441.1	440.7	440.3	440.2
157.5°	446.7	447.3	447.9	448.5	449.2	449.3	448.8	448.3	447.8	447.4	447.4
160°	453.0	453.6	454.1	454.7	455.2	455.3	454.8	454.3	453.8	453.4	453.5
162.5°	459.0	459.5	460.0	460.4	460.9	460.9	460.3	459.8	459.2	458.7	458.8
165°	463.6	464.2	464.7	465.3	465.8	465.8	465.2	464.5	463.9	463.3	463.3
167.5°	467.2	467.8	468.4	469.0	469.7	469.7	469.0	468.4	467.8	467.2	467.2
170°	470.3	471.0	471.6	472.2	472.8	472.8	472.2	471.6	471.0	470.3	470.3
172.5°	472.1	472.8	473.5	474.2	474.9	475.0	474.3	473.7	473.1	472.5	472.4
175°	473.9	474.5	475.1	475.8	476.4	476.4	475.9	475.3	474.8	474.2	474.1
177.5°	474.2	475.0	475.8	476.6	477.4	477.4	476.8	476.2	475.6	474.9	474.8
180°	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4
2.5°	2359.9	2353.8	2331.3	2308.7	2283.1	2257.5	2238.6	2219.7	2191.5	2163.4	2140.3
5°	2557.5	2528.9	2481.3	2433.6	2369.1	2304.6	2261.1	2217.6	2159.3	2100.9	2054.3
7.5°	2714.2	2665.0	2598.5	2531.9	2447.5	2363.0	2283.1	2203.3	2114.2	2025.1	1952.4
10°	2814.0	2780.7	2703.9	2627.1	2514.0	2400.9	2289.3	2177.7	2063.0	1948.3	1852.1
12.5°	2823.7	2826.8	2756.1	2685.5	2557.5	2429.5	2293.9	2158.2	2013.9	1869.5	1757.4
15°	2738.2	2791.0	2752.1	2713.1	2584.1	2455.1	2288.3	2121.4	1955.0	1788.6	1659.1
17.5°	2579.5	2692.7	2698.3	2703.9	2574.9	2445.9	2261.1	2076.3	1887.9	1699.6	1563.4
20°	2363.0	2529.9	2587.2	2644.6	2539.6	2434.7	2236.0	2037.4	1826.5	1615.6	1472.8
22.5°	2141.9	2344.6	2449.5	2554.5	2476.6	2398.8	2187.4	1976.0	1753.3	1530.6	1385.8
25°	1890.0	2111.1	2272.4	2433.6	2386.0	2338.4	2130.1	1921.7	1684.7	1447.7	1299.8
27.5°	1670.4	1895.1	2089.6	2284.2	2273.9	2263.7	2056.9	1850.1	1607.4	1364.8	1221.9
30°	1474.8	1684.2	1901.8	2119.3	2144.4	2169.5	1969.8	1770.2	1527.0	1283.9	1146.2
32.5°	1301.8	1484.6	1718.0	1951.4	2000.6	2049.7	1869.5	1689.3	1448.7	1208.1	1075.5
35°	1160.0	1325.9	1559.3	1792.7	1854.2	1915.6	1758.9	1602.3	1367.8	1133.4	1006.9
37.5°	1034.6	1173.3	1401.1	1628.9	1704.2	1779.4	1639.2	1498.9	1279.3	1059.7	943.5
40°	930.7	1042.3	1251.6	1461.0	1548.0	1635.1	1519.4	1403.7	1195.3	987.0	880.0
42.5°	843.6	942.9	1132.9	1322.8	1406.2	1489.7	1391.9	1294.1	1108.8	923.5	825.7
45°	769.4	848.8	1021.3	1193.8	1273.1	1352.5	1268.5	1184.6	1021.3	858.0	766.8
47.5°	699.8	767.9	915.3	1062.7	1133.4	1204.0	1138.5	1073.0	934.8	796.5	714.1
50°	637.3	692.1	821.1	950.1	1011.5	1073.0	1015.1	957.3	843.6	730.0	658.3
52.5°	583.1	627.6	735.6	843.6	896.4	949.1	899.4	849.8	759.7	669.6	607.1
55°	529.3	567.2	660.9	754.6	790.4	826.2	787.8	749.4	676.8	604.1	551.3
57.5°	479.2	512.9	589.7	666.5	694.2	721.8	687.0	652.2	597.4	542.6	498.6
60°	430.0	457.7	521.6	585.6	602.5	619.4	591.3	563.1	524.7	486.3	446.9
62.5°	384.4	409.5	457.1	504.7	516.0	527.3	505.8	484.3	455.1	425.9	395.2
65°	337.4	356.3	395.2	434.1	441.3	448.4	429.5	410.6	388.5	366.5	344.0
67.5°	293.8	307.1	338.9	370.6	371.1	371.7	356.3	340.9	328.6	316.4	298.4
70°	251.4	264.1	285.1	306.1	306.6	307.1	294.9	282.6	273.4	264.1	250.8
72.5°	207.8	217.1	232.9	248.8	247.8	246.7	239.1	231.4	224.2	217.1	207.3
75°	168.4	176.1	186.8	197.6	194.5	191.5	187.4	183.3	177.1	171.0	164.8
77.5°	132.6	137.2	143.3	149.5	147.4	145.4	141.8	138.2	133.6	129.0	126.4
80°	97.3	99.3	103.4	107.5	106.5	105.5	101.4	97.3	96.2	95.2	91.6
82.5°	66.0	68.6	69.6	70.6	70.1	69.6	66.5	63.5	62.5	61.4	60.9
85°	39.4	39.9	40.4	41.0	39.4	37.9	36.9	35.8	35.8	35.8	35.3
87.5°	17.9	18.4	18.4	18.4	17.9	17.4	16.4	15.4	15.9	16.4	16.4
90°	6.4	5.4	4.4	3.5	2.7	1.9	1.1	0.4	1.1	1.9	2.7
92.5°	7.8	7.1	6.4	6.2	6.7	7.2	7.7	8.1	7.7	7.2	6.7
95°	9.2	8.4	7.5	8.7	11.9	15.1	18.3	21.6	18.3	15.1	11.9
97.5°	19.3	23.3	27.3	30.4	32.6	34.8	37.0	39.2	37.0	34.8	32.6
100°	36.2	48.4	60.7	66.0	64.4	62.9	61.3	59.7	61.3	62.9	64.4
102.5°	53.5	67.1	80.8	87.1	86.1	85.1	84.1	83.0	84.1	85.1	86.1
105°	91.5	98.6	105.7	108.8	107.9	107.0	106.2	105.3	106.2	107.0	107.9
107.5°	135.1	133.9	132.7	131.8	131.1	130.4	129.7	129.0	129.7	130.4	131.1
110°	157.6	156.8	155.9	155.2	154.5	153.9	153.3	152.7	153.3	153.9	154.5





TEST NUMBER: P831642

CATALOG NUMBER: S123DIP-S775D365U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	179.9	179.0	178.2	177.5	176.9	176.4	175.8	175.3	175.8	176.4	176.9
115°	201.4	200.7	200.0	199.4	198.9	198.5	198.0	197.5	198.0	198.5	198.9
117.5°	222.9	222.5	222.1	221.6	221.1	220.5	220.0	219.4	220.0	220.5	221.1
120°	243.4	243.1	242.9	242.4	241.7	241.0	240.3	239.6	240.3	241.0	241.7
122.5°	263.3	263.0	262.7	262.3	261.7	261.2	260.6	260.1	260.6	261.2	261.7
125°	282.1	281.8	281.4	281.0	280.3	279.7	279.1	278.5	279.1	279.7	280.3
127.5°	300.6	300.2	299.9	299.3	298.7	298.1	297.5	296.8	297.5	298.1	298.7
130°	317.4	317.1	316.8	316.3	315.7	315.0	314.4	313.8	314.4	315.0	315.7
132.5°	333.5	333.2	333.0	332.6	331.9	331.3	330.7	330.0	330.7	331.3	331.9
135°	349.6	349.2	348.9	348.5	348.1	347.6	347.1	346.7	347.1	347.6	348.1
137.5°	364.0	363.9	363.7	363.3	362.7	362.0	361.4	360.8	361.4	362.0	362.7
140°	377.6	377.4	377.2	376.8	376.3	375.9	375.4	374.9	375.4	375.9	376.3
142.5°	390.7	390.5	390.2	389.9	389.4	388.9	388.5	388.0	388.5	388.9	389.4
145°	402.9	402.7	402.6	402.2	401.7	401.1	400.6	400.0	400.6	401.1	401.7
147.5°	413.8	413.7	413.5	413.2	412.9	412.5	412.1	411.7	412.1	412.5	412.9
150°	423.7	423.6	423.4	423.2	423.0	422.7	422.5	422.3	422.5	422.7	423.0
152.5°	432.4	432.3	432.2	432.1	432.1	432.0	431.9	431.8	431.9	432.0	432.1
155°	440.1	440.1	440.0	440.0	440.2	440.3	440.5	440.7	440.5	440.3	440.2
157.5°	447.5	447.6	447.7	447.7	447.7	447.7	447.7	447.7	447.7	447.7	447.7
160°	453.5	453.6	453.7	453.8	453.8	453.9	454.0	454.1	454.0	453.9	453.8
162.5°	458.8	458.9	459.0	459.1	459.4	459.6	459.9	460.1	459.9	459.6	459.4
165°	463.4	463.5	463.6	463.7	464.0	464.2	464.4	464.7	464.4	464.2	464.0
167.5°	467.2	467.2	467.2	467.3	467.6	467.9	468.3	468.6	468.3	467.9	467.6
170°	470.3	470.3	470.3	470.5	470.8	471.1	471.4	471.7	471.4	471.1	470.8
172.5°	472.3	472.2	472.1	472.3	472.7	473.1	473.5	473.9	473.5	473.1	472.7
175°	474.1	474.0	473.9	474.1	474.5	474.8	475.2	475.6	475.2	474.8	474.5
177.5°	474.8	474.7	474.6	474.8	475.2	475.6	475.9	476.3	475.9	475.6	475.2
180°	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6



TEST NUMBER: P831642

CATALOG NUMBER: S123DIP-S775D365U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4	2206.4
2.5°	2117.3	2097.3	2077.4	2062.0	2046.6	2020.5	1994.4	1988.3	1982.1	1973.4	1964.7
5°	2007.7	1958.6	1909.4	1865.4	1821.4	1787.1	1752.8	1730.3	1707.7	1691.4	1675.0
7.5°	1879.8	1806.0	1732.3	1680.1	1627.9	1578.2	1528.6	1512.7	1496.8	1475.3	1453.8
10°	1755.9	1674.5	1593.1	1525.0	1456.9	1408.3	1359.6	1340.2	1320.7	1293.6	1266.5
12.5°	1645.3	1556.2	1467.1	1398.6	1330.0	1282.9	1235.8	1207.6	1179.5	1164.1	1148.7
15°	1529.6	1434.4	1339.2	1275.7	1212.2	1169.7	1127.2	1102.7	1078.1	1063.2	1048.4
17.5°	1427.2	1333.0	1238.8	1177.9	1117.0	1078.1	1039.2	1017.7	996.2	984.9	973.7
20°	1330.0	1237.8	1145.7	1086.3	1026.9	995.2	963.4	949.6	935.8	926.6	917.4
22.5°	1240.9	1150.3	1059.7	1009.0	958.3	932.7	907.1	897.4	887.7	880.0	872.3
25°	1151.8	1070.9	990.0	947.0	904.0	883.1	862.1	852.3	842.6	834.9	827.3
27.5°	1079.1	1001.8	924.5	887.7	850.8	834.4	818.0	810.4	802.7	795.5	788.3
30°	1008.5	939.4	870.3	838.5	806.8	791.9	777.1	769.4	761.7	755.1	748.4
32.5°	942.9	883.6	824.2	795.0	765.8	753.5	741.3	732.0	722.8	717.7	712.6
35°	880.5	827.3	774.0	750.0	725.9	713.6	701.3	693.6	686.0	681.9	677.8
37.5°	827.3	779.6	732.0	709.0	686.0	674.2	662.4	655.8	649.1	647.6	646.0
40°	773.0	732.0	691.1	668.6	646.0	635.8	625.6	621.5	617.4	616.3	615.3
42.5°	727.9	688.0	648.1	627.6	607.1	598.4	589.7	587.7	585.6	587.2	588.7
45°	675.7	642.5	609.2	590.2	571.3	564.1	557.0	555.4	553.9	557.0	560.0
47.5°	631.7	601.0	570.3	552.4	534.4	529.3	524.2	523.7	523.2	527.3	531.4
50°	586.7	557.0	527.3	512.9	498.6	494.0	489.4	490.9	492.5	499.1	505.8
52.5°	544.7	517.0	489.4	476.1	462.8	459.7	456.6	460.2	463.8	471.0	478.1
55°	498.6	473.5	448.4	438.2	428.0	424.9	421.8	429.0	436.2	442.8	449.5
57.5°	454.6	432.6	410.6	401.3	392.1	391.6	391.1	397.8	404.4	411.6	418.7
60°	407.5	389.1	370.6	363.5	356.3	357.3	358.3	366.0	373.7	379.3	385.0
62.5°	364.5	349.1	333.8	327.1	320.5	323.0	325.6	333.3	340.9	347.6	354.2
65°	321.5	308.7	295.9	291.3	286.7	290.3	293.8	300.5	307.1	311.8	316.4
67.5°	280.5	269.8	259.0	255.4	251.9	255.4	259.0	265.7	272.3	276.9	281.6
70°	237.5	228.8	220.1	217.6	215.0	219.1	223.2	228.8	234.5	239.1	243.7
72.5°	197.6	190.9	184.3	183.8	183.3	186.8	190.4	196.1	201.7	204.8	207.8
75°	158.7	155.1	151.5	151.0	150.5	154.1	157.7	160.7	163.8	166.4	168.9
77.5°	123.9	120.8	117.7	118.3	118.8	121.3	123.9	127.0	130.0	131.6	133.1
80°	88.0	87.0	86.0	87.0	88.0	90.1	92.1	94.2	96.2	97.3	98.3
82.5°	60.4	59.4	58.4	59.9	61.4	63.0	64.5	66.0	67.6	68.1	68.6
85°	34.8	36.3	37.9	37.9	37.9	38.4	38.9	39.4	39.9	39.4	38.9
87.5°	16.4	16.9	17.4	17.4	17.4	17.9	18.4	18.4	18.4	17.9	17.4
90°	3.5	4.4	5.4	6.4	7.5	8.5	8.8	9.1	9.4	9.7	10.0
92.5°	6.2	6.4	7.1	7.8	8.5	9.2	9.7	10.3	10.8	11.4	11.7
95°	8.7	7.5	8.4	9.2	10.1	11.0	11.5	12.1	12.6	13.2	13.4
97.5°	30.4	27.3	23.3	19.3	15.3	11.3	11.9	12.6	13.2	13.8	14.2
100°	66.0	60.7	48.4	36.2	23.9	11.7	12.3	12.9	13.5	14.2	14.5
102.5°	87.1	80.8	67.1	53.5	39.8	26.1	23.6	21.0	18.4	15.8	14.6
105°	108.8	105.7	98.6	91.5	84.5	77.4	63.5	49.6	35.7	21.8	14.9
107.5°	131.8	132.7	133.9	135.1	136.3	137.5	125.4	113.3	101.2	89.1	77.9
110°	155.2	155.9	156.8	157.6	158.5	159.4	156.8	154.2	151.6	149.0	142.1

TEST NUMBER: P831642

CATALOG NUMBER: S123DIP-S775D365U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	177.5	178.2	179.0	179.9	180.8	181.6	182.3	183.0	183.8	184.5	184.7
115°	199.4	200.0	200.7	201.4	202.1	202.8	203.6	204.4	205.2	206.0	206.5
117.5°	221.6	222.1	222.5	222.9	223.3	223.7	224.3	224.9	225.6	226.2	226.5
120°	242.4	242.9	243.1	243.4	243.6	243.8	244.5	245.1	245.7	246.3	246.7
122.5°	262.3	262.7	263.0	263.3	263.7	264.0	264.4	264.8	265.1	265.5	265.8
125°	281.0	281.4	281.8	282.1	282.4	282.7	282.9	283.0	283.2	283.3	283.5
127.5°	299.3	299.9	300.2	300.6	301.0	301.4	301.7	301.9	302.1	302.4	302.4
130°	316.3	316.8	317.1	317.4	317.7	318.0	318.3	318.7	319.0	319.3	319.4
132.5°	332.6	333.0	333.2	333.5	333.7	333.9	334.2	334.6	334.9	335.2	335.2
135°	348.5	348.9	349.2	349.6	349.9	350.2	350.4	350.7	350.9	351.1	351.1
137.5°	363.3	363.7	363.9	364.0	364.2	364.3	364.7	365.1	365.5	365.9	366.0
140°	376.8	377.2	377.4	377.6	377.9	378.1	378.4	378.7	379.0	379.4	379.4
142.5°	389.9	390.2	390.5	390.7	390.9	391.2	391.4	391.7	391.9	392.1	392.1
145°	402.2	402.6	402.7	402.9	403.0	403.2	403.4	403.5	403.7	403.8	403.9
147.5°	413.2	413.5	413.7	413.8	414.0	414.1	414.3	414.5	414.6	414.8	414.7
150°	423.2	423.4	423.6	423.7	423.9	424.0	424.2	424.4	424.5	424.7	424.6
152.5°	432.1	432.2	432.3	432.4	432.4	432.5	432.8	433.2	433.5	433.8	433.7
155°	440.0	440.0	440.1	440.1	440.2	440.3	440.7	441.1	441.5	441.9	441.8
157.5°	447.7	447.7	447.6	447.5	447.4	447.4	447.8	448.3	448.8	449.3	449.2
160°	453.8	453.7	453.6	453.5	453.5	453.4	453.8	454.3	454.8	455.3	455.2
162.5°	459.1	459.0	458.9	458.8	458.8	458.7	459.2	459.8	460.3	460.9	460.9
165°	463.7	463.6	463.5	463.4	463.3	463.3	463.9	464.5	465.2	465.8	465.8
167.5°	467.3	467.2	467.2	467.2	467.2	467.2	467.8	468.4	469.0	469.7	469.7
170°	470.5	470.3	470.3	470.3	470.3	470.3	471.0	471.6	472.2	472.8	472.8
172.5°	472.3	472.1	472.2	472.3	472.4	472.5	473.1	473.7	474.3	475.0	474.9
175°	474.1	473.9	474.0	474.1	474.1	474.2	474.8	475.3	475.9	476.4	476.4
177.5°	474.8	474.6	474.7	474.8	474.8	474.9	475.6	476.2	476.8	477.4	477.4
180°	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6	475.6



TEST NUMBER: P831642

CATALOG NUMBER: S123DIP-S775D365U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2206.4	2206.4	2206.4	2206.4
2.5°	1961.1	1957.6	1943.2	1928.9
5°	1662.7	1650.4	1646.3	1642.2
7.5°	1452.8	1451.8	1430.3	1408.8
10°	1268.0	1269.5	1250.1	1230.6
12.5°	1135.9	1123.1	1121.6	1120.1
15°	1036.6	1024.9	1022.8	1020.8
17.5°	966.5	959.3	957.3	955.2
20°	913.3	909.2	905.6	902.0
22.5°	867.2	862.1	859.0	855.9
25°	822.6	818.0	817.0	816.0
27.5°	782.7	777.1	777.1	777.1
30°	744.8	741.3	739.7	738.2
32.5°	709.5	706.4	706.4	706.4
35°	676.2	674.7	672.7	670.6
37.5°	646.0	646.0	645.0	644.0
40°	616.9	618.4	618.4	618.4
42.5°	590.2	591.8	591.8	591.8
45°	562.6	565.2	566.2	567.2
47.5°	535.5	539.6	540.6	541.6
50°	508.8	511.9	512.4	512.9
52.5°	481.7	485.3	487.9	490.4
55°	453.0	456.6	458.2	459.7
57.5°	422.3	425.9	426.4	426.9
60°	388.5	392.1	393.2	394.2
62.5°	356.3	358.3	359.4	360.4
65°	319.4	322.5	324.6	326.6
67.5°	284.1	286.7	286.7	286.7
70°	244.7	245.7	247.3	248.8
72.5°	208.3	208.9	208.9	208.9
75°	170.0	171.0	171.5	172.0
77.5°	133.6	134.1	134.1	134.1
80°	97.8	97.3	97.3	97.3
82.5°	67.1	65.5	65.5	65.5
85°	38.4	37.9	38.4	38.9
87.5°	17.4	17.4	17.4	17.4
90°	10.1	10.3	10.4	10.6
92.5°	11.8	11.9	11.9	12.0
95°	13.4	13.4	13.4	13.4
97.5°	14.3	14.3	14.4	14.5
100°	14.6	14.7	14.8	14.8
102.5°	14.7	14.9	15.0	15.2
105°	15.1	15.2	15.4	15.5
107.5°	67.6	57.3	47.0	36.8
110°	130.9	119.6	108.4	97.2



TEST NUMBER: P831642

CATALOG NUMBER: S123DIP-S775D365U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	184.6	184.4	184.3	184.1
115°	206.8	207.2	207.5	207.8
117.5°	226.6	226.7	226.8	226.9
120°	246.7	246.7	246.7	246.7
122.5°	265.9	265.9	266.0	266.1
125°	283.6	283.8	284.0	284.1
127.5°	302.2	302.1	301.9	301.8
130°	319.2	319.1	318.9	318.7
132.5°	335.0	334.8	334.5	334.3
135°	350.9	350.7	350.4	350.2
137.5°	365.9	365.7	365.5	365.4
140°	379.3	379.1	379.0	378.8
142.5°	391.9	391.7	391.4	391.2
145°	403.9	403.9	403.9	403.9
147.5°	414.3	413.9	413.5	413.1
150°	424.4	424.2	423.9	423.7
152.5°	433.3	433.0	432.6	432.2
155°	441.4	440.9	440.4	439.9
157.5°	448.5	447.9	447.3	446.7
160°	454.7	454.1	453.6	453.0
162.5°	460.4	460.0	459.5	459.0
165°	465.3	464.7	464.2	463.6
167.5°	469.0	468.4	467.8	467.2
170°	472.2	471.6	471.0	470.3
172.5°	474.2	473.5	472.8	472.1
175°	475.8	475.1	474.5	473.9
177.5°	476.6	475.8	475.0	474.2
180°	475.6	475.6	475.6	475.6



TEST NUMBER: P831642

CATALOG NUMBER: S123DIP-S775D365U835-4F0-1E-UDD-G

**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	16.35	17.38	17.11	18.15	19.09	18.58	19.61	19.34	20.39	21.33
	3H	18.01	18.93	18.78	19.71	20.69	20.02	20.94	20.79	21.73	22.70
	4H	18.59	19.46	19.38	20.26	21.24	20.48	21.35	21.27	22.14	23.12
	6H	18.97	19.77	19.77	20.58	21.57	20.76	21.56	21.57	22.37	23.36
	8H	19.07	19.83	19.89	20.66	21.65	20.83	21.59	21.64	22.41	23.41
	12H	19.12	19.85	19.94	20.66	21.69	20.85	21.58	21.67	22.40	23.42
4H	2H	16.94	17.81	17.74	18.61	19.59	18.77	19.64	19.56	20.43	21.41
	3H	18.78	19.51	19.59	20.34	21.34	20.40	21.12	21.21	21.95	22.95
	4H	19.49	20.15	20.31	20.97	22.00	20.99	21.65	21.81	22.48	23.50
	6H	19.97	20.54	20.81	21.39	22.43	21.40	21.97	22.24	22.82	23.86
	8H	20.11	20.64	20.95	21.49	22.53	21.52	22.05	22.36	22.90	23.94
	12H	20.19	20.66	21.05	21.53	22.58	21.57	22.05	22.43	22.92	23.96
8H	4H	19.77	20.30	20.61	21.15	22.19	21.11	21.64	21.95	22.49	23.53
	6H	20.36	20.80	21.23	21.69	22.73	21.62	22.05	22.49	22.94	23.99
	8H	20.57	20.96	21.45	21.84	22.91	21.80	22.18	22.68	23.07	24.13
	12H	20.70	21.04	21.58	21.92	23.04	21.91	22.25	22.79	23.12	24.24
12H	4H	19.78	20.25	20.64	21.12	22.17	21.09	21.57	21.95	22.44	23.48
	6H	20.41	20.80	21.29	21.69	22.75	21.63	22.02	22.51	22.90	23.97
	8H	20.66	21.00	21.54	21.87	22.99	21.84	22.18	22.72	23.06	24.17