

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: P831125

Luminaire Tested: S123DIP-S1000D365U950-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831125
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-S1000D365U950-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

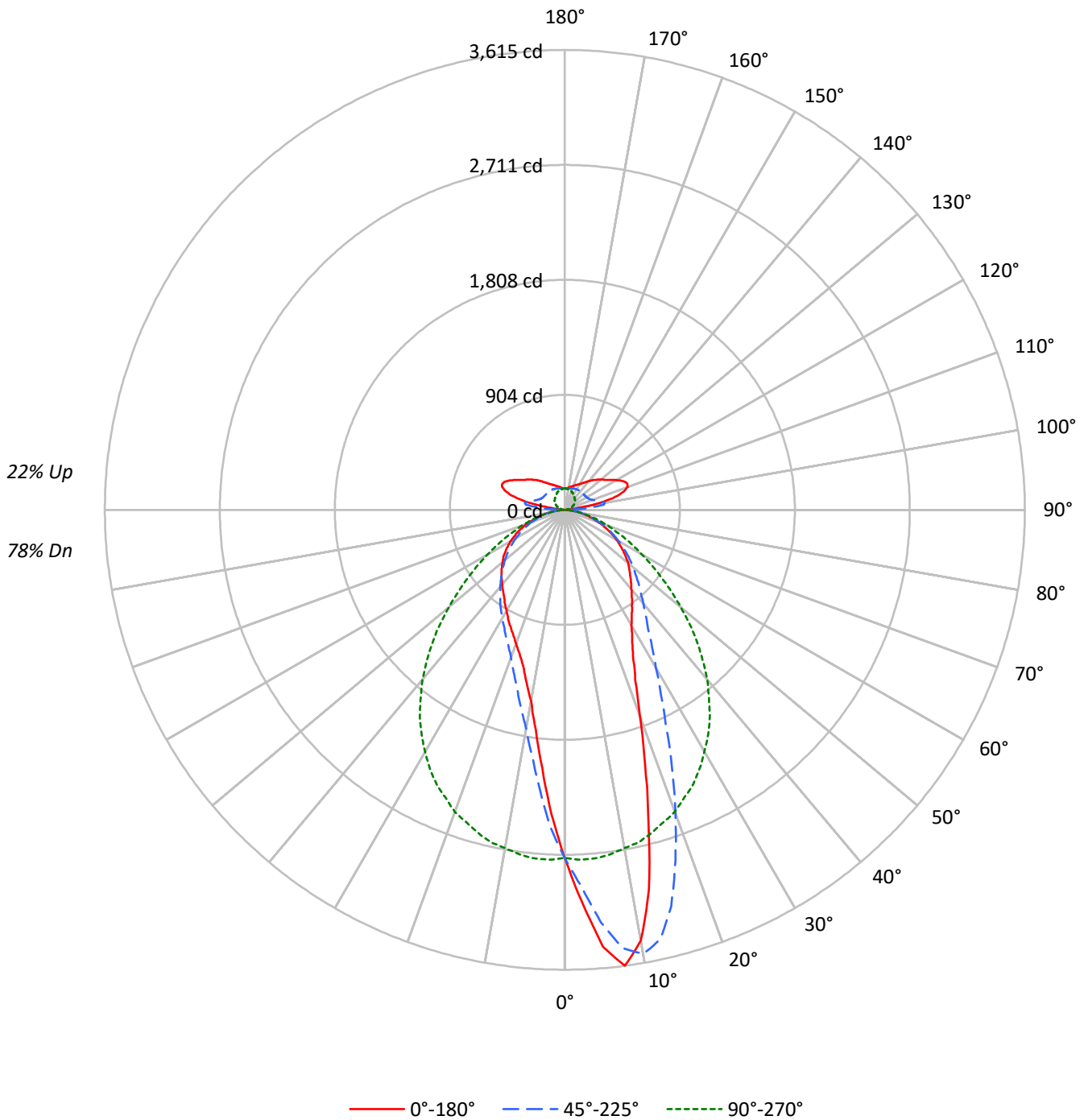
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5651.8 lumens
Efficiency: N/A
Efficacy: 125.3 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: Semi-Direct

Input Watts (W): 45.1
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	114	114	114	114	109	109	109	109	99	99	99	90	90	90	82	82	82	78				
1	105	101	97	93	100	96	93	90	88	85	83	80	78	77	73	72	71	67				
2	96	89	83	78	92	85	80	75	78	74	70	72	68	65	66	63	61	58				
3	88	79	72	66	84	76	69	64	70	65	60	64	60	57	59	56	53	50				
4	82	71	63	57	78	68	61	56	63	57	52	58	53	49	54	50	47	44				
5	75	64	56	50	72	62	54	49	57	51	46	53	48	44	49	45	41	39				
6	70	58	50	44	67	56	49	43	52	46	41	48	43	39	45	41	37	35				
7	65	53	45	40	62	51	44	39	48	42	37	45	39	35	42	37	34	31				
8	61	49	41	36	58	47	40	35	44	38	34	41	36	32	39	34	31	29				
9	57	45	38	33	55	44	37	32	41	35	31	38	33	29	36	31	28	26				
10	54	42	35	30	52	41	34	29	38	32	28	36	31	27	34	29	26	24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	29450	29450	29450	29450	29450
5°	37245	35152	29714	23945	22003
10°	37606	38743	29515	19087	16680
15°	28324	35972	29314	16164	14106
20°	19734	29108	28940	14136	12812
25°	15049	22384	28302	13005	12018
30°	13018	17784	27283	12205	11378
35°	12079	15014	26108	11628	10927
40°	11435	13468	24458	11078	10775
45°	11055	12466	22360	10648	10707
50°	10865	11672	19879	10258	10652
55°	10460	11091	17440	9888	10699
60°	10086	10469	15033	9539	10523
65°	9475	9880	12967	9167	10315
70°	8749	9130	11028	8551	9709
75°	7918	8185	9453	7948	8871
80°	6533	7159	7476	6924	7476
85°	5175	5805	5483	5879	5953

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 25530 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.7	4.6
10°-20°	643.5	11.4
20°-30°	761.9	13.5
30°-40°	766.1	13.6
40°-50°	702.9	12.4
50°-60°	580.1	10.3
60°-70°	410.4	7.3
70°-80°	219.1	3.9
80°-90°	56.5	1.0
90°-100°	90.4	1.6
100°-110°	264.6	4.7
110°-120°	258.4	4.6
120°-130°	205.8	3.6
130°-140°	162.3	2.9
140°-150°	121.1	2.1
150°-160°	84.4	1.5
160°-170°	49.6	0.9
170°-180°	16.1	0.3
0°-30°	1664.1	29.4
0°-40°	2430.2	43.0
0°-60°	3713.2	65.7
0°-90°	4399.1	77.8
90°-120°	613.3	10.9
90°-150°	1102.5	19.5
90°-180°	1253.0	22.2
0°-180°	5651.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2736	2736	2736	2736	2736	
5°	3447	3253	2750	2216	2036	328
15°	2542	3228	2631	1450	1266	702
25°	1267	1885	2383	1095	1012	598
35°	919	1143	1987	885	832	578
45°	726	819	1469	700	703	562
55°	557	591	929	527	570	499
65°	372	388	509	360	405	370
75°	190	197	227	191	213	200
85°	42	47	44	48	48	47
90°	10	8	1	8	10	8
95°	39	200	12	200	39	64
105°	429	271	39	271	429	428
115°	522	207	69	207	522	509
125°	411	194	96	194	411	372
135°	333	191	113	191	333	259
145°	261	188	128	188	261	165
155°	216	182	146	182	216	101
165°	188	175	160	175	188	54
175°	170	168	166	168	170	16
180°	166	166	166	166	166	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0
2.5°	3083.9	3080.7	3077.5	3061.6	3045.8	3038.2	3030.5	3007.7	2984.8	2959.4	2934.0
5°	3447.0	3455.9	3464.7	3454.6	3444.4	3413.3	3382.2	3341.0	3299.7	3253.3	3207.0
7.5°	3614.6	3619.6	3624.7	3618.4	3612.0	3603.8	3595.5	3558.7	3521.9	3474.3	3426.6
10°	3440.6	3452.0	3463.5	3488.2	3513.0	3540.9	3568.8	3563.8	3558.7	3544.7	3530.8
12.5°	3058.5	3072.4	3086.4	3135.9	3185.4	3248.9	3312.4	3367.0	3421.6	3459.7	3497.7
15°	2541.7	2580.5	2619.2	2664.3	2709.3	2802.6	2896.0	3010.9	3125.8	3228.0	3330.2
17.5°	2093.6	2108.2	2122.8	2171.0	2219.3	2336.7	2454.1	2586.8	2719.5	2889.0	3058.5
20°	1722.8	1736.2	1749.5	1813.0	1876.5	1968.5	2060.6	2209.7	2358.9	2541.1	2723.3
22.5°	1447.3	1468.3	1489.2	1524.8	1560.3	1648.6	1736.8	1869.5	2002.2	2203.4	2404.6
25°	1267.1	1282.3	1297.5	1319.1	1340.7	1411.2	1481.6	1590.8	1700.0	1884.7	2069.4
27.5°	1143.9	1150.3	1156.6	1178.2	1199.8	1245.5	1291.2	1385.1	1479.1	1635.9	1792.7
30°	1047.4	1051.9	1056.3	1075.4	1094.4	1125.5	1156.6	1224.5	1292.5	1430.8	1569.2
32.5°	980.1	983.3	986.5	1001.1	1015.7	1037.9	1060.1	1109.6	1159.1	1273.4	1387.7
35°	919.2	921.1	923.0	933.8	944.6	961.1	977.6	1015.0	1052.5	1142.6	1232.8
37.5°	865.9	868.4	870.9	877.3	883.6	898.2	912.8	942.7	972.5	1041.7	1110.9
40°	813.8	818.3	822.7	827.1	831.6	843.6	855.7	878.6	901.4	958.5	1015.7
42.5°	769.4	773.8	778.3	780.2	782.1	789.1	796.0	817.0	837.9	880.5	923.0
45°	726.2	728.1	730.0	731.9	733.8	739.5	745.3	763.7	782.1	818.9	855.7
47.5°	686.9	686.9	686.9	688.1	689.4	694.5	699.5	712.9	726.2	754.8	783.3
50°	648.8	648.8	648.8	646.9	645.0	648.1	651.3	661.5	671.6	697.0	722.4
52.5°	603.1	603.1	603.1	603.7	604.3	604.3	604.3	613.2	622.1	645.0	667.8
55°	557.4	559.9	562.4	560.5	558.6	559.9	561.2	566.9	572.6	591.0	609.4
57.5°	511.6	512.9	514.2	513.6	512.9	513.6	514.2	519.3	524.3	538.3	552.3
60°	468.5	468.5	468.5	467.2	465.9	467.2	468.5	471.0	473.6	486.3	499.0
62.5°	420.2	420.9	421.5	422.1	422.8	421.5	420.2	423.4	426.6	436.1	445.6
65°	372.0	372.6	373.3	375.2	377.1	375.8	374.5	377.7	380.9	387.9	394.8
67.5°	328.8	327.6	326.3	326.9	327.6	329.5	331.4	332.0	332.6	340.3	347.9
70°	278.0	279.3	280.6	279.9	279.3	279.9	280.6	282.5	284.4	290.1	295.8
72.5°	232.3	233.0	233.6	233.6	233.6	234.9	236.1	238.0	240.0	243.1	246.3
75°	190.4	190.4	190.4	191.7	193.0	193.6	194.2	194.2	194.2	196.8	199.3
77.5°	144.7	147.9	151.1	150.4	149.8	151.1	152.4	154.3	156.2	157.4	158.7
80°	105.4	105.4	105.4	106.0	106.6	108.6	110.5	111.7	113.0	115.5	118.1
82.5°	67.3	67.9	68.6	70.5	72.4	73.6	74.9	76.8	78.7	78.7	78.7
85°	41.9	40.6	39.4	40.6	41.9	43.2	44.4	45.1	45.7	47.0	48.2
87.5°	20.3	20.3	20.3	20.3	20.3	20.9	21.6	21.6	21.6	21.6	21.6
90°	9.8	10.1	9.8	9.4	9.8	9.1	8.8	8.4	8.1	8.4	7.4
92.5°	17.9	18.5	18.2	19.6	20.2	22.6	26.0	33.4	46.9	62.7	69.4
95°	39.1	40.5	42.8	45.8	52.3	64.4	82.3	121.4	162.2	199.9	178.0
97.5°	80.2	83.9	92.0	104.8	127.4	165.9	210.4	278.8	317.9	307.5	229.6
100°	211.4	211.0	224.2	248.8	282.8	330.7	370.2	397.5	385.7	319.3	215.8
102.5°	334.8	344.5	355.0	373.2	397.8	423.8	442.6	436.9	389.0	297.3	195.5
105°	428.8	430.5	441.3	454.1	469.6	478.4	472.0	438.3	367.8	271.0	179.7
107.5°	490.2	493.9	498.3	504.3	506.4	497.3	471.0	418.0	337.5	247.8	168.2
110°	525.2	525.9	526.6	523.9	514.5	490.9	448.4	386.3	309.1	228.6	162.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	532.3	532.0	528.6	518.8	499.6	467.6	418.7	355.0	284.5	215.8	158.8
115°	521.5	519.8	513.1	498.3	473.0	436.2	386.7	328.0	265.7	207.3	158.4
117.5°	497.9	495.6	485.5	468.9	442.6	404.6	359.0	307.1	253.2	201.6	158.8
120°	466.9	464.9	456.8	437.9	411.3	377.2	336.8	291.3	243.7	197.9	160.1
122.5°	437.9	435.2	426.1	409.6	386.7	355.7	318.9	278.8	236.0	195.5	162.5
125°	411.3	408.9	400.5	385.7	364.1	337.1	304.8	268.0	229.6	193.5	164.9
127.5°	388.4	386.3	378.6	365.8	346.2	321.3	291.6	258.2	223.5	192.5	167.6
130°	369.5	366.8	359.7	347.6	329.7	306.8	279.5	249.1	218.8	191.5	170.2
132.5°	350.9	349.3	343.2	331.1	314.5	293.0	268.0	240.7	214.4	191.2	172.3
135°	333.4	331.1	325.0	314.9	298.4	279.1	257.2	233.3	210.7	190.8	174.3
137.5°	314.9	312.9	307.8	297.3	283.2	266.0	246.4	226.2	207.3	190.1	175.6
140°	295.3	295.7	290.3	280.8	268.0	253.5	237.3	220.1	204.3	189.8	177.0
142.5°	277.1	277.5	272.7	264.6	254.2	242.1	228.6	214.4	201.6	189.1	178.0
145°	260.6	259.9	257.2	250.1	241.7	231.9	221.2	210.0	199.2	188.5	178.3
147.5°	246.4	246.1	243.4	238.3	231.6	224.5	215.4	206.3	196.9	187.4	178.3
150°	234.3	234.3	232.3	228.6	223.5	217.1	210.0	202.3	194.5	186.1	178.3
152.5°	224.2	224.2	223.2	219.8	216.1	211.0	205.0	198.6	191.8	184.4	177.3
155°	216.1	215.8	215.1	212.4	209.4	205.3	200.3	194.9	189.1	182.4	176.7
157.5°	208.3	208.3	207.7	205.6	202.9	199.6	195.5	190.8	186.1	180.7	175.6
160°	200.9	201.3	201.3	199.2	196.9	194.5	191.2	187.4	183.1	178.7	175.0
162.5°	194.2	194.5	194.5	192.8	191.5	189.5	186.4	183.4	180.0	176.7	173.6
165°	188.5	188.5	188.8	187.4	186.1	184.4	182.0	180.0	177.3	174.6	172.3
167.5°	182.7	182.7	183.1	182.0	181.4	180.0	178.7	177.0	174.6	172.6	170.9
170°	177.7	177.7	178.0	177.3	177.0	176.3	175.0	174.0	172.3	170.6	169.6
172.5°	172.9	173.3	174.0	173.3	173.3	172.9	171.9	171.3	169.9	168.9	168.6
175°	169.6	169.9	170.2	169.9	169.9	169.9	169.2	168.9	168.2	167.6	167.6
177.5°	167.2	167.2	167.9	167.6	167.9	167.9	167.6	167.2	166.9	166.5	166.9
180°	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0
2.5°	2926.4	2918.8	2890.9	2862.9	2831.2	2799.5	2776.0	2752.5	2717.6	2682.7	2654.1
5°	3171.5	3135.9	3076.9	3017.8	2937.9	2857.9	2803.9	2750.0	2677.6	2605.2	2547.5
7.5°	3365.7	3304.8	3222.2	3139.7	3035.0	2930.2	2831.2	2732.2	2621.7	2511.3	2421.1
10°	3489.5	3448.2	3353.0	3257.8	3117.5	2977.2	2838.8	2700.4	2558.2	2416.0	2296.7
12.5°	3501.6	3505.4	3417.8	3330.2	3171.5	3012.8	2844.5	2676.3	2497.3	2318.3	2179.3
15°	3395.5	3460.9	3412.7	3364.4	3204.5	3044.5	2837.6	2630.6	2424.3	2218.0	2057.4
17.5°	3198.8	3339.0	3346.0	3353.0	3193.0	3033.1	2803.9	2574.7	2341.1	2107.5	1938.7
20°	2930.2	3137.2	3208.3	3279.4	3149.2	3019.1	2772.8	2526.5	2265.0	2003.4	1826.3
22.5°	2656.0	2907.4	3037.5	3167.7	3071.2	2974.7	2712.5	2450.3	2174.2	1898.1	1718.4
25°	2343.7	2617.9	2817.9	3017.8	2958.8	2899.8	2641.4	2383.0	2089.1	1795.2	1611.8
27.5°	2071.4	2350.0	2591.3	2832.5	2819.8	2807.1	2550.6	2294.2	1993.3	1692.4	1515.3
30°	1828.9	2088.5	2358.3	2628.1	2659.2	2690.3	2442.7	2195.1	1893.6	1592.1	1421.3
32.5°	1614.3	1840.9	2130.4	2419.9	2480.8	2541.7	2318.3	2094.8	1796.5	1498.1	1333.7
35°	1438.5	1644.1	1933.6	2223.1	2299.2	2375.4	2181.2	1986.9	1696.2	1405.4	1248.7
37.5°	1282.9	1455.0	1737.4	2019.9	2113.2	2206.6	2032.6	1858.7	1586.4	1314.0	1169.9
40°	1154.1	1292.5	1552.1	1811.7	1919.6	2027.6	1884.1	1740.6	1482.3	1223.9	1091.2
42.5°	1046.2	1169.3	1404.8	1640.3	1743.8	1847.3	1726.0	1604.8	1375.0	1145.2	1023.9
45°	954.1	1052.5	1266.4	1480.4	1578.7	1677.1	1573.0	1468.9	1266.4	1063.9	950.9
47.5°	867.8	952.2	1135.0	1317.8	1405.4	1493.0	1411.8	1330.5	1159.1	987.7	885.5
50°	790.3	858.2	1018.2	1178.2	1254.4	1330.5	1258.8	1187.1	1046.2	905.2	816.4
52.5°	723.0	778.3	912.2	1046.2	1111.5	1176.9	1115.3	1053.8	942.0	830.3	752.9
55°	656.4	703.4	819.5	935.7	980.1	1024.6	977.0	929.3	839.2	749.1	683.7
57.5°	594.2	636.1	731.3	826.5	860.8	895.1	851.9	808.7	740.8	672.9	618.3
60°	533.2	567.5	646.9	726.2	747.2	768.1	733.2	698.3	650.7	603.1	554.2
62.5°	476.7	507.8	566.9	625.9	639.9	653.8	627.2	600.5	564.3	528.2	490.1
65°	418.3	441.8	490.1	538.3	547.2	556.1	532.6	509.1	481.8	454.5	426.6
67.5°	364.4	380.9	420.2	459.6	460.2	460.9	441.8	422.8	407.5	392.3	370.1
70°	311.7	327.6	353.6	379.6	380.2	380.9	365.6	350.4	339.0	327.6	311.1
72.5°	257.7	269.2	288.8	308.5	307.2	306.0	296.5	286.9	278.0	269.2	257.1
75°	208.8	218.4	231.7	245.0	241.2	237.4	232.3	227.3	219.6	212.0	204.4
77.5°	164.4	170.1	177.7	185.4	182.8	180.3	175.8	171.4	165.7	160.0	156.8
80°	120.6	123.2	128.2	133.3	132.0	130.8	125.7	120.6	119.3	118.1	113.6
82.5°	81.9	85.1	86.3	87.6	87.0	86.3	82.5	78.7	77.4	76.2	75.5
85°	48.9	49.5	50.1	50.8	48.9	47.0	45.7	44.4	44.4	44.4	43.8
87.5°	22.2	22.9	22.9	22.9	22.2	21.6	20.3	19.0	19.7	20.3	20.3
90°	6.4	5.4	4.4	3.7	3.0	2.0	1.3	0.7	1.3	2.0	3.0
92.5°	51.9	34.0	23.3	17.2	13.8	10.8	7.4	5.1	7.4	10.8	13.8
95°	122.7	72.5	43.8	30.7	21.9	16.2	12.5	11.5	12.5	16.2	21.9
97.5°	136.5	78.2	49.9	35.4	26.6	21.6	18.5	18.2	18.5	21.6	26.6
100°	127.1	77.2	53.6	40.5	32.4	27.6	25.3	24.9	25.3	27.6	32.4
102.5°	119.0	78.6	58.0	46.2	39.1	34.7	32.7	32.0	32.7	34.7	39.1
105°	116.0	81.2	63.0	52.6	46.2	42.1	40.1	39.1	40.1	42.1	46.2
107.5°	115.3	85.6	69.4	59.7	53.6	49.6	47.5	46.5	47.5	49.6	53.6
110°	117.0	91.4	76.2	66.8	61.0	57.3	55.6	54.6	55.6	57.3	61.0



TEST NUMBER: P831125

CATALOG NUMBER: S123DIP-S1000D365U950-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	120.4	97.1	83.3	74.2	68.4	64.7	63.0	62.0	63.0	64.7	68.4
115°	124.1	103.5	90.7	81.6	75.9	72.5	70.5	69.1	70.5	72.5	75.9
117.5°	128.8	110.2	97.4	89.0	82.6	79.6	77.9	76.2	77.9	79.6	82.6
120°	134.2	116.6	104.5	96.1	89.7	86.3	84.6	83.6	84.6	86.3	89.7
122.5°	139.2	123.4	111.6	102.5	96.4	92.7	91.0	90.0	91.0	92.7	96.4
125°	144.6	129.8	118.0	108.9	102.5	98.8	96.8	96.1	96.8	98.8	102.5
127.5°	149.0	135.5	124.1	115.0	107.9	104.2	101.8	100.8	101.8	104.2	107.9
130°	153.4	140.6	129.5	120.4	113.3	109.2	106.2	105.2	106.2	109.2	113.3
132.5°	157.4	145.0	134.2	125.4	118.3	113.3	109.9	108.6	109.9	113.3	118.3
135°	160.8	149.3	138.9	129.8	122.7	117.7	113.9	112.6	113.9	117.7	122.7
137.5°	163.5	152.4	142.3	133.8	126.8	121.4	117.7	116.3	117.7	121.4	126.8
140°	165.5	155.4	145.6	137.2	130.5	125.1	121.7	120.0	121.7	125.1	130.5
142.5°	167.6	157.8	148.3	140.6	133.8	129.1	125.4	124.1	125.4	129.1	133.8
145°	168.9	159.8	151.0	143.3	137.5	132.5	129.5	128.4	129.5	132.5	137.5
147.5°	169.9	161.5	153.4	146.6	140.9	136.5	133.5	132.8	133.5	136.5	140.9
150°	170.2	163.2	155.4	149.3	144.6	140.2	137.5	137.2	137.5	140.2	144.6
152.5°	170.9	164.2	157.8	152.0	148.0	144.3	141.6	141.6	141.6	144.3	148.0
155°	170.9	165.5	159.8	155.1	151.4	148.0	146.0	146.0	146.0	148.0	151.4
157.5°	171.3	166.2	161.5	157.8	154.4	151.4	149.7	149.3	149.7	151.4	154.4
160°	171.3	167.2	163.2	159.8	157.4	154.7	153.4	153.4	153.4	154.7	157.4
162.5°	170.9	167.6	164.2	161.5	159.5	157.4	156.4	156.4	156.4	157.4	159.5
165°	170.2	167.9	165.2	162.8	161.5	159.8	159.1	159.5	159.1	159.8	161.5
167.5°	169.9	167.9	165.9	164.2	163.2	161.8	161.5	161.8	161.5	161.8	163.2
170°	168.9	167.6	165.9	165.2	164.5	163.5	163.2	163.8	163.2	163.5	164.5
172.5°	168.6	167.6	166.2	165.9	165.5	164.9	164.9	165.2	164.9	164.9	165.5
175°	167.9	167.2	166.5	166.2	166.2	165.5	165.9	166.2	165.9	165.5	166.2
177.5°	167.6	166.9	166.5	166.5	166.5	166.2	166.5	166.9	166.5	166.2	166.5
180°	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5



TEST NUMBER: P831125

CATALOG NUMBER: S123DIP-S1000D365U950-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0	2736.0
2.5°	2625.5	2600.8	2576.0	2557.0	2537.9	2505.6	2473.2	2465.6	2457.9	2447.2	2436.4
5°	2489.7	2428.7	2367.8	2313.2	2258.6	2216.1	2173.6	2145.6	2117.7	2097.4	2077.1
7.5°	2331.0	2239.6	2148.2	2083.4	2018.7	1957.1	1895.5	1875.8	1856.2	1829.5	1802.8
10°	2177.4	2076.4	1975.5	1891.1	1806.6	1746.3	1686.0	1661.9	1637.8	1604.1	1570.5
12.5°	2040.2	1929.8	1819.3	1734.3	1649.2	1590.8	1532.4	1497.5	1462.6	1443.5	1424.5
15°	1896.8	1778.7	1660.6	1581.9	1503.2	1450.5	1397.8	1367.4	1336.9	1318.5	1300.1
17.5°	1769.8	1653.0	1536.2	1460.7	1385.1	1336.9	1288.6	1262.0	1235.3	1221.4	1207.4
20°	1649.2	1534.9	1420.7	1347.0	1273.4	1234.1	1194.7	1177.6	1160.4	1149.0	1137.6
22.5°	1538.8	1426.4	1314.0	1251.2	1188.3	1156.6	1124.9	1112.8	1100.7	1091.2	1081.7
25°	1428.3	1328.0	1227.7	1174.4	1121.1	1095.0	1069.0	1056.9	1044.9	1035.4	1025.8
27.5°	1338.2	1242.3	1146.4	1100.7	1055.0	1034.7	1014.4	1004.9	995.4	986.5	977.6
30°	1250.6	1164.9	1079.2	1039.8	1000.4	982.0	963.6	954.1	944.6	936.3	928.1
32.5°	1169.3	1095.7	1022.0	985.8	949.7	934.4	919.2	907.8	896.3	890.0	883.6
35°	1091.9	1025.8	959.8	930.0	900.1	884.9	869.7	860.2	850.6	845.6	840.5
37.5°	1025.8	966.8	907.8	879.2	850.6	836.0	821.4	813.2	804.9	803.0	801.1
40°	958.5	907.8	857.0	829.0	801.1	788.4	775.7	770.6	765.6	764.3	763.0
42.5°	902.7	853.2	803.7	778.3	752.9	742.1	731.3	728.8	726.2	728.1	730.0
45°	837.9	796.7	755.4	731.9	708.4	699.5	690.7	688.8	686.9	690.7	694.5
47.5°	783.3	745.3	707.2	684.9	662.7	656.4	650.0	649.4	648.8	653.8	658.9
50°	727.5	690.7	653.8	636.1	618.3	612.6	606.9	608.8	610.7	618.9	627.2
52.5°	675.4	641.1	606.9	590.4	573.9	570.1	566.2	570.7	575.1	584.0	592.9
55°	618.3	587.2	556.1	543.4	530.7	526.9	523.1	532.0	540.8	549.1	557.4
57.5°	563.7	536.4	509.1	497.7	486.3	485.6	485.0	493.2	501.5	510.4	519.3
60°	505.3	482.4	459.6	450.7	441.8	443.1	444.4	453.9	463.4	470.4	477.4
62.5°	452.0	432.9	413.9	405.6	397.4	400.6	403.7	413.3	422.8	431.0	439.3
65°	398.7	382.8	366.9	361.2	355.5	359.9	364.4	372.6	380.9	386.6	392.3
67.5°	347.9	334.5	321.2	316.8	312.3	316.8	321.2	329.5	337.7	343.4	349.1
70°	294.5	283.8	273.0	269.8	266.6	271.7	276.8	283.8	290.7	296.5	302.2
72.5°	245.0	236.8	228.5	227.9	227.3	231.7	236.1	243.1	250.1	253.9	257.7
75°	196.8	192.3	187.9	187.3	186.6	191.1	195.5	199.3	203.1	206.3	209.5
77.5°	153.6	149.8	146.0	146.6	147.3	150.4	153.6	157.4	161.2	163.1	165.0
80°	109.2	107.9	106.6	107.9	109.2	111.7	114.3	116.8	119.3	120.6	121.9
82.5°	74.9	73.6	72.4	74.3	76.2	78.1	80.0	81.9	83.8	84.4	85.1
85°	43.2	45.1	47.0	47.0	47.0	47.6	48.2	48.9	49.5	48.9	48.2
87.5°	20.3	20.9	21.6	21.6	21.6	22.2	22.9	22.9	22.9	22.2	21.6
90°	3.7	4.4	5.4	6.4	7.4	8.4	8.1	8.4	8.8	9.1	9.8
92.5°	17.2	23.3	34.0	51.9	69.4	62.7	46.9	33.4	26.0	22.6	20.2
95°	30.7	43.8	72.5	122.7	178.0	199.9	162.2	121.4	82.3	64.4	52.3
97.5°	35.4	49.9	78.2	136.5	229.6	307.5	317.9	278.8	210.4	165.9	127.4
100°	40.5	53.6	77.2	127.1	215.8	319.3	385.7	397.5	370.2	330.7	282.8
102.5°	46.2	58.0	78.6	119.0	195.5	297.3	389.0	436.9	442.6	423.8	397.8
105°	52.6	63.0	81.2	116.0	179.7	271.0	367.8	438.3	472.0	478.4	469.6
107.5°	59.7	69.4	85.6	115.3	168.2	247.8	337.5	418.0	471.0	497.3	506.4
110°	66.8	76.2	91.4	117.0	162.2	228.6	309.1	386.3	448.4	490.9	514.5



TEST NUMBER: P831125

CATALOG NUMBER: S123DIP-S1000D365U950-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	74.2	83.3	97.1	120.4	158.8	215.8	284.5	355.0	418.7	467.6	499.6
115°	81.6	90.7	103.5	124.1	158.4	207.3	265.7	328.0	386.7	436.2	473.0
117.5°	89.0	97.4	110.2	128.8	158.8	201.6	253.2	307.1	359.0	404.6	442.6
120°	96.1	104.5	116.6	134.2	160.1	197.9	243.7	291.3	336.8	377.2	411.3
122.5°	102.5	111.6	123.4	139.2	162.5	195.5	236.0	278.8	318.9	355.7	386.7
125°	108.9	118.0	129.8	144.6	164.9	193.5	229.6	268.0	304.8	337.1	364.1
127.5°	115.0	124.1	135.5	149.0	167.6	192.5	223.5	258.2	291.6	321.3	346.2
130°	120.4	129.5	140.6	153.4	170.2	191.5	218.8	249.1	279.5	306.8	329.7
132.5°	125.4	134.2	145.0	157.4	172.3	191.2	214.4	240.7	268.0	293.0	314.5
135°	129.8	138.9	149.3	160.8	174.3	190.8	210.7	233.3	257.2	279.1	298.4
137.5°	133.8	142.3	152.4	163.5	175.6	190.1	207.3	226.2	246.4	266.0	283.2
140°	137.2	145.6	155.4	165.5	177.0	189.8	204.3	220.1	237.3	253.5	268.0
142.5°	140.6	148.3	157.8	167.6	178.0	189.1	201.6	214.4	228.6	242.1	254.2
145°	143.3	151.0	159.8	168.9	178.3	188.5	199.2	210.0	221.2	231.9	241.7
147.5°	146.6	153.4	161.5	169.9	178.3	187.4	196.9	206.3	215.4	224.5	231.6
150°	149.3	155.4	163.2	170.2	178.3	186.1	194.5	202.3	210.0	217.1	223.5
152.5°	152.0	157.8	164.2	170.9	177.3	184.4	191.8	198.6	205.0	211.0	216.1
155°	155.1	159.8	165.5	170.9	176.7	182.4	189.1	194.9	200.3	205.3	209.4
157.5°	157.8	161.5	166.2	171.3	175.6	180.7	186.1	190.8	195.5	199.6	202.9
160°	159.8	163.2	167.2	171.3	175.0	178.7	183.1	187.4	191.2	194.5	196.9
162.5°	161.5	164.2	167.6	170.9	173.6	176.7	180.0	183.4	186.4	189.5	191.5
165°	162.8	165.2	167.9	170.2	172.3	174.6	177.3	180.0	182.0	184.4	186.1
167.5°	164.2	165.9	167.9	169.9	170.9	172.6	174.6	177.0	178.7	180.0	181.4
170°	165.2	165.9	167.6	168.9	169.6	170.6	172.3	174.0	175.0	176.3	177.0
172.5°	165.9	166.2	167.6	168.6	168.6	168.9	169.9	171.3	171.9	172.9	173.3
175°	166.2	166.5	167.2	167.9	167.6	167.6	168.2	168.9	169.2	169.9	169.9
177.5°	166.5	166.5	166.9	167.6	166.9	166.5	166.9	167.2	167.6	167.9	167.9
180°	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5



TEST NUMBER: P831125

CATALOG NUMBER: S123DIP-S1000D365U950-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2736.0	2736.0	2736.0	2736.0
2.5°	2431.9	2427.5	2409.7	2391.9
5°	2061.8	2046.6	2041.5	2036.4
7.5°	1801.6	1800.3	1773.6	1747.0
10°	1572.4	1574.3	1550.2	1526.1
12.5°	1408.6	1392.8	1390.8	1388.9
15°	1285.5	1270.9	1268.3	1265.8
17.5°	1198.5	1189.6	1187.1	1184.5
20°	1132.5	1127.4	1123.0	1118.5
22.5°	1075.4	1069.0	1065.2	1061.4
25°	1020.1	1014.4	1013.1	1011.9
27.5°	970.6	963.6	963.6	963.6
30°	923.6	919.2	917.3	915.4
32.5°	879.8	876.0	876.0	876.0
35°	838.6	836.7	834.1	831.6
37.5°	801.1	801.1	799.8	798.6
40°	764.9	766.8	766.8	766.8
42.5°	731.9	733.8	733.8	733.8
45°	697.6	700.8	702.1	703.4
47.5°	664.0	669.1	670.3	671.6
50°	631.0	634.8	635.4	636.1
52.5°	597.3	601.8	605.0	608.1
55°	561.8	566.2	568.1	570.1
57.5°	523.7	528.2	528.8	529.4
60°	481.8	486.3	487.5	488.8
62.5°	441.8	444.4	445.6	446.9
65°	396.1	399.9	402.5	405.0
67.5°	352.3	355.5	355.5	355.5
70°	303.4	304.7	306.6	308.5
72.5°	258.4	259.0	259.0	259.0
75°	210.8	212.0	212.7	213.3
77.5°	165.7	166.3	166.3	166.3
80°	121.2	120.6	120.6	120.6
82.5°	83.2	81.3	81.3	81.3
85°	47.6	47.0	47.6	48.2
87.5°	21.6	21.6	21.6	21.6
90°	9.4	9.8	10.1	9.8
92.5°	19.6	18.2	18.5	17.9
95°	45.8	42.8	40.5	39.1
97.5°	104.8	92.0	83.9	80.2
100°	248.8	224.2	211.0	211.4
102.5°	373.2	355.0	344.5	334.8
105°	454.1	441.3	430.5	428.8
107.5°	504.3	498.3	493.9	490.2
110°	523.9	526.6	525.9	525.2



TEST NUMBER: P831125

CATALOG NUMBER: S123DIP-S1000D365U950-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	518.8	528.6	532.0	532.3
115°	498.3	513.1	519.8	521.5
117.5°	468.9	485.5	495.6	497.9
120°	437.9	456.8	464.9	466.9
122.5°	409.6	426.1	435.2	437.9
125°	385.7	400.5	408.9	411.3
127.5°	365.8	378.6	386.3	388.4
130°	347.6	359.7	366.8	369.5
132.5°	331.1	343.2	349.3	350.9
135°	314.9	325.0	331.1	333.4
137.5°	297.3	307.8	312.9	314.9
140°	280.8	290.3	295.7	295.3
142.5°	264.6	272.7	277.5	277.1
145°	250.1	257.2	259.9	260.6
147.5°	238.3	243.4	246.1	246.4
150°	228.6	232.3	234.3	234.3
152.5°	219.8	223.2	224.2	224.2
155°	212.4	215.1	215.8	216.1
157.5°	205.6	207.7	208.3	208.3
160°	199.2	201.3	201.3	200.9
162.5°	192.8	194.5	194.5	194.2
165°	187.4	188.8	188.5	188.5
167.5°	182.0	183.1	182.7	182.7
170°	177.3	178.0	177.7	177.7
172.5°	173.3	174.0	173.3	172.9
175°	169.9	170.2	169.9	169.6
177.5°	167.6	167.9	167.2	167.2
180°	166.5	166.5	166.5	166.5



TEST NUMBER: P831125

CATALOG NUMBER: S123DIP-S1000D365U950-4F0-1E-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	17.61	18.73	18.30	19.42	20.24	19.85	20.97	20.53	21.66	22.47
	3H	19.28	20.28	19.98	20.98	21.83	21.29	22.29	21.99	23.00	23.85
	4H	19.87	20.81	20.58	21.53	22.38	21.76	22.70	22.47	23.41	24.27
	6H	20.25	21.12	20.98	21.85	22.72	22.04	22.91	22.77	23.64	24.51
	8H	20.36	21.18	21.09	21.93	22.80	22.11	22.94	22.85	23.68	24.56
	12H	20.41	21.20	21.15	21.93	22.84	22.14	22.93	22.88	23.67	24.57
4H	2H	18.22	19.16	18.94	19.88	20.74	20.04	20.99	20.76	21.70	22.56
	3H	20.07	20.85	20.80	21.61	22.48	21.69	22.47	22.42	23.22	24.10
	4H	20.78	21.49	21.52	22.24	23.15	22.28	22.99	23.02	23.74	24.65
	6H	21.27	21.88	22.03	22.66	23.57	22.70	23.31	23.46	24.09	25.00
	8H	21.41	21.98	22.18	22.76	23.68	22.81	23.39	23.58	24.16	25.09
	12H	21.49	22.00	22.27	22.80	23.73	22.87	23.38	23.66	24.18	25.11
8H	4H	21.06	21.64	21.83	22.41	23.34	22.40	22.98	23.17	23.75	24.68
	6H	21.66	22.13	22.46	22.95	23.88	22.91	23.39	23.71	24.21	25.13
	8H	21.87	22.29	22.68	23.11	24.05	23.09	23.52	23.91	24.33	25.28
	12H	22.00	22.37	22.81	23.18	24.18	23.21	23.58	24.02	24.39	25.39
12H	4H	21.07	21.59	21.86	22.39	23.32	22.39	22.90	23.18	23.70	24.63
	6H	21.71	22.13	22.52	22.95	23.89	22.93	23.35	23.74	24.17	25.11
	8H	21.96	22.33	22.77	23.13	24.14	23.14	23.51	23.95	24.32	25.32