

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: P831116

Luminaire Tested: S123DIP-S1000D365U930-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831116
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-S1000D365U930-4F0-1E-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

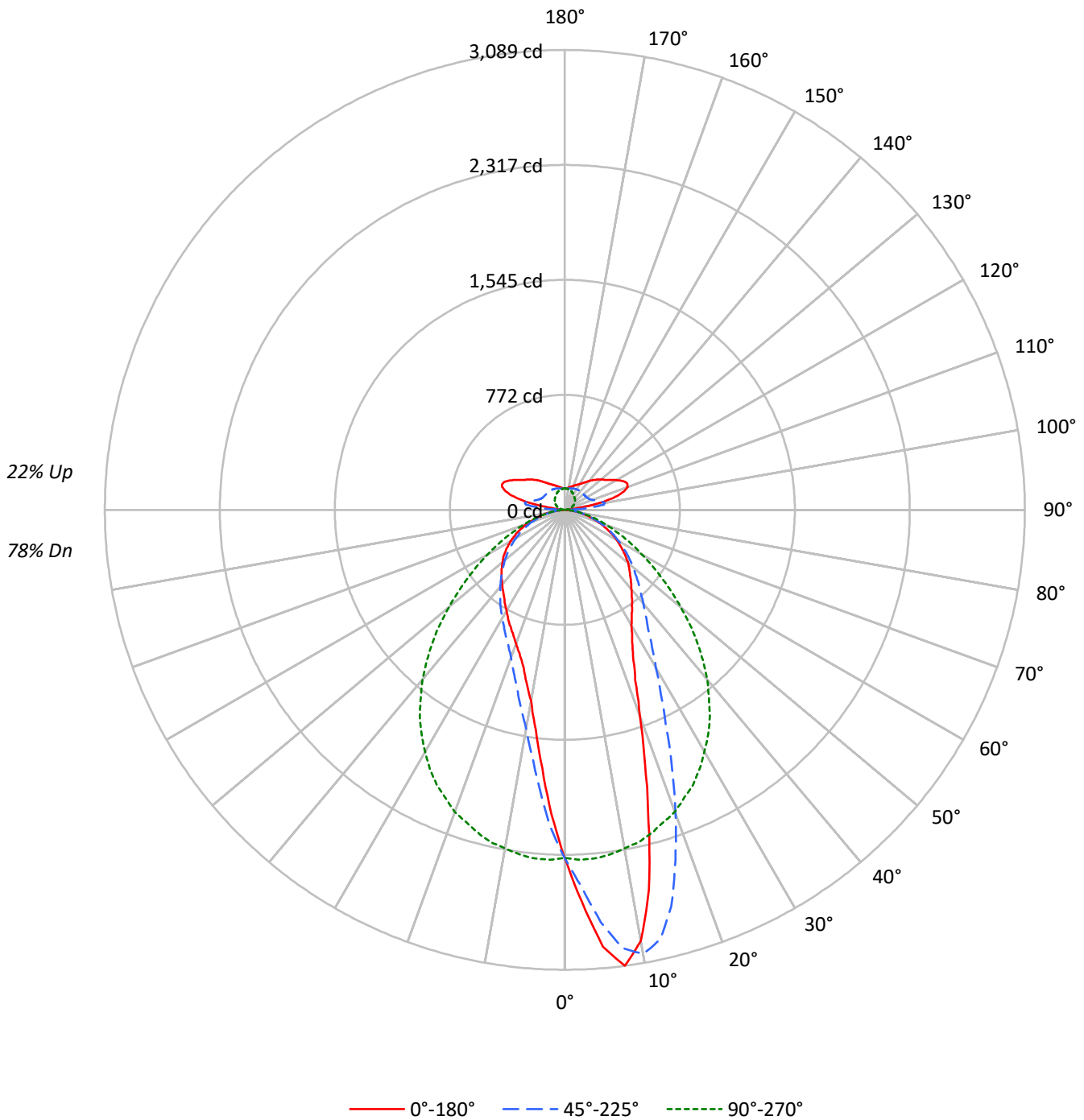
Lumens per Lamp: N/A
Luminaire Lumens: 4830.1 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

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				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°	25168	25168	25168	25168	25168
5°	31829	30041	25393	20464	18805
10°	32138	33111	25224	16312	14255
15°	24206	30741	25052	13814	12055
20°	16866	24876	24733	12080	10950
25°	12860	19130	24188	11114	10271
30°	11125	15198	23317	10432	9723
35°	10322	12832	22312	9938	9339
40°	9773	11511	20903	9468	9208
45°	9447	10653	19110	9100	9150
50°	9284	9975	16988	8766	9103
55°	8938	9479	14904	8450	9143
60°	8620	8947	12848	8153	8992
65°	8097	8443	11082	7834	8815
70°	7478	7802	9426	7308	8299
75°	6771	6995	8077	6791	7582
80°	5585	6118	6391	5920	6391
85°	4421	4952	4693	5027	5088

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 21818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.1	4.6
10°-20°	549.9	11.4
20°-30°	651.1	13.5
30°-40°	654.7	13.6
40°-50°	600.7	12.4
50°-60°	495.8	10.3
60°-70°	350.7	7.3
70°-80°	187.2	3.9
80°-90°	48.3	1.0
90°-100°	77.2	1.6
100°-110°	226.1	4.7
110°-120°	220.8	4.6
120°-130°	175.9	3.6
130°-140°	138.7	2.9
140°-150°	103.5	2.1
150°-160°	72.2	1.5
160°-170°	42.4	0.9
170°-180°	13.8	0.3
0°-30°	1422.1	29.4
0°-40°	2076.8	43.0
0°-60°	3173.3	65.7
0°-90°	3759.5	77.8
90°-120°	524.2	10.9
90°-150°	942.3	19.5
90°-180°	1071.0	22.2
0°-180°	4830.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2338	2338	2338	2338	2338	
5°	2946	2780	2350	1894	1740	281
15°	2172	2759	2248	1240	1082	600
25°	1083	1611	2037	936	865	511
35°	786	976	1698	756	711	494
45°	621	700	1255	598	601	481
55°	476	505	794	450	487	426
65°	318	332	435	308	346	316
75°	163	168	194	163	182	171
85°	36	40	38	41	41	40
90°	8	7	1	7	8	7
95°	33	171	10	171	33	54
105°	366	232	33	232	366	366
115°	446	177	59	177	446	435
125°	352	165	82	165	352	318
135°	285	163	96	163	285	221
145°	223	161	110	161	223	141
155°	185	156	125	156	185	86
165°	161	149	136	149	161	46
175°	145	143	142	143	145	14
180°	142	142	142	142	142	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2
2.5°	2635.5	2632.8	2630.1	2616.5	2602.9	2596.4	2589.9	2570.4	2550.9	2529.2	2507.5
5°	2945.8	2953.4	2961.0	2952.3	2943.6	2917.1	2890.5	2855.2	2819.9	2780.3	2740.7
7.5°	3089.0	3093.4	3097.7	3092.3	3086.9	3079.8	3072.8	3041.3	3009.8	2969.1	2928.5
10°	2940.4	2950.2	2959.9	2981.1	3002.2	3026.1	3050.0	3045.6	3041.3	3029.4	3017.4
12.5°	2613.8	2625.7	2637.7	2680.0	2722.3	2776.5	2830.8	2877.5	2924.1	2956.7	2989.2
15°	2172.2	2205.3	2238.4	2276.9	2315.4	2395.2	2474.9	2573.1	2671.3	2758.6	2846.0
17.5°	1789.2	1801.7	1814.1	1855.4	1896.6	1997.0	2097.3	2210.7	2324.1	2468.9	2613.8
20°	1472.4	1483.8	1495.1	1549.4	1603.6	1682.3	1761.0	1888.5	2016.0	2171.7	2327.4
22.5°	1236.9	1254.8	1272.7	1303.1	1333.5	1408.9	1484.3	1597.7	1711.1	1883.0	2055.0
25°	1082.8	1095.9	1108.9	1127.3	1145.8	1206.0	1266.2	1359.5	1452.8	1610.7	1768.6
27.5°	977.6	983.0	988.4	1006.9	1025.3	1064.4	1103.5	1183.7	1264.0	1398.0	1532.0
30°	895.1	898.9	902.7	919.0	935.3	961.9	988.4	1046.5	1104.5	1222.8	1341.1
32.5°	837.6	840.3	843.1	855.5	868.0	887.0	906.0	948.3	990.6	1088.3	1185.9
35°	785.5	787.2	788.8	798.0	807.2	821.4	835.5	867.5	899.5	976.5	1053.5
37.5°	740.0	742.1	744.3	749.7	755.2	767.6	780.1	805.6	831.1	890.3	949.4
40°	695.5	699.3	703.1	706.9	710.7	721.0	731.3	750.8	770.4	819.2	868.0
42.5°	657.5	661.3	665.1	666.7	668.4	674.3	680.3	698.2	716.1	752.5	788.8
45°	620.6	622.3	623.9	625.5	627.1	632.0	636.9	652.6	668.4	699.8	731.3
47.5°	587.0	587.0	587.0	588.1	589.2	593.5	597.8	609.2	620.6	645.0	669.5
50°	554.4	554.4	554.4	552.8	551.2	553.9	556.6	565.3	574.0	595.7	617.4
52.5°	515.4	515.4	515.4	515.9	516.5	516.5	516.5	524.1	531.7	551.2	570.7
55°	476.3	478.5	480.7	479.0	477.4	478.5	479.6	484.5	489.3	505.1	520.8
57.5°	437.3	438.3	439.4	438.9	438.3	438.9	439.4	443.8	448.1	460.0	472.0
60°	400.4	400.4	400.4	399.3	398.2	399.3	400.4	402.5	404.7	415.6	426.4
62.5°	359.1	359.7	360.2	360.8	361.3	360.2	359.1	361.9	364.6	372.7	380.8
65°	317.9	318.5	319.0	320.6	322.2	321.2	320.1	322.8	325.5	331.5	337.4
67.5°	281.0	279.9	278.8	279.4	279.9	281.6	283.2	283.7	284.3	290.8	297.3
70°	237.6	238.7	239.8	239.2	238.7	239.2	239.8	241.4	243.0	247.9	252.8
72.5°	198.6	199.1	199.6	199.6	199.6	200.7	201.8	203.4	205.1	207.8	210.5
75°	162.8	162.8	162.8	163.8	164.9	165.5	166.0	166.0	166.0	168.2	170.3
77.5°	123.7	126.4	129.1	128.6	128.0	129.1	130.2	131.8	133.5	134.5	135.6
80°	90.1	90.1	90.1	90.6	91.1	92.8	94.4	95.5	96.6	98.7	100.9
82.5°	57.5	58.0	58.6	60.2	61.8	62.9	64.0	65.6	67.3	67.3	67.3
85°	35.8	34.7	33.6	34.7	35.8	36.9	38.0	38.5	39.1	40.1	41.2
87.5°	17.4	17.4	17.4	17.4	17.4	17.9	18.4	18.4	18.4	18.4	18.4
90°	8.4	8.6	8.4	8.1	8.4	7.8	7.5	7.2	6.9	7.2	6.3
92.5°	15.3	15.8	15.6	16.7	17.3	19.3	22.2	28.5	40.0	53.6	59.4
95°	33.4	34.6	36.6	39.2	44.7	55.0	70.3	103.7	138.6	170.8	152.1
97.5°	68.6	71.7	78.7	89.6	108.9	141.8	179.8	238.3	271.7	262.8	196.2
100°	180.6	180.4	191.6	212.6	241.7	282.6	316.3	339.7	329.6	272.8	184.4
102.5°	286.1	294.4	303.4	318.9	340.0	362.2	378.3	373.4	332.5	254.1	167.1
105°	366.5	367.9	377.1	388.1	401.3	408.8	403.4	374.5	314.3	231.6	153.6
107.5°	418.9	422.1	425.8	431.0	432.7	425.0	402.5	357.3	288.4	211.8	143.8
110°	448.9	449.5	450.0	447.7	439.7	419.5	383.2	330.2	264.2	195.3	138.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	454.9	454.6	451.8	443.4	427.0	399.6	357.8	303.4	243.2	184.4	135.7
115°	445.7	444.3	438.5	425.8	404.2	372.8	330.5	280.3	227.0	177.2	135.4
117.5°	425.5	423.5	414.9	400.8	378.3	345.7	306.8	262.5	216.4	172.3	135.7
120°	399.0	397.3	390.4	374.3	351.5	322.4	287.8	248.9	208.3	169.1	136.9
122.5°	374.3	372.0	364.2	350.1	330.5	304.0	272.6	238.3	201.7	167.1	138.9
125°	351.5	349.5	342.3	329.6	311.2	288.1	260.5	229.0	196.2	165.4	140.9
127.5°	331.9	330.2	323.5	312.6	295.9	274.6	249.2	220.7	191.0	164.5	143.2
130°	315.8	313.5	307.4	297.0	281.8	262.2	238.8	212.9	187.0	163.6	145.5
132.5°	299.9	298.5	293.3	282.9	268.8	250.4	229.0	205.7	183.2	163.4	147.2
135°	284.9	282.9	277.7	269.1	255.0	238.6	219.8	199.4	180.1	163.1	149.0
137.5°	269.1	267.4	263.0	254.1	242.0	227.3	210.6	193.3	177.2	162.5	150.1
140°	252.4	252.7	248.1	240.0	229.0	216.7	202.8	188.1	174.6	162.2	151.3
142.5°	236.8	237.1	233.1	226.2	217.2	206.9	195.3	183.2	172.3	161.6	152.1
145°	222.7	222.1	219.8	213.8	206.6	198.2	189.0	179.5	170.3	161.1	152.4
147.5°	210.6	210.3	208.0	203.7	197.9	191.9	184.1	176.3	168.3	160.2	152.4
150°	200.2	200.2	198.5	195.3	191.0	185.5	179.5	172.9	166.2	159.0	152.4
152.5°	191.6	191.6	190.7	187.8	184.7	180.4	175.2	169.7	163.9	157.6	151.5
155°	184.7	184.4	183.8	181.5	178.9	175.5	171.1	166.5	161.6	155.9	151.0
157.5°	178.1	178.1	177.5	175.7	173.4	170.6	167.1	163.1	159.0	154.4	150.1
160°	171.7	172.0	172.0	170.3	168.3	166.2	163.4	160.2	156.4	152.7	149.5
162.5°	166.0	166.2	166.2	164.8	163.6	161.9	159.3	156.7	153.9	151.0	148.4
165°	161.1	161.1	161.3	160.2	159.0	157.6	155.6	153.9	151.5	149.2	147.2
167.5°	156.2	156.2	156.4	155.6	155.0	153.9	152.7	151.3	149.2	147.5	146.1
170°	151.8	151.8	152.1	151.5	151.3	150.7	149.5	148.7	147.2	145.8	144.9
172.5°	147.8	148.1	148.7	148.1	148.1	147.8	146.9	146.4	145.2	144.3	144.1
175°	144.9	145.2	145.5	145.2	145.2	145.2	144.6	144.3	143.8	143.2	143.2
177.5°	142.9	142.9	143.5	143.2	143.5	143.5	143.2	142.9	142.6	142.3	142.6
180°	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2
2.5°	2501.0	2494.4	2470.6	2446.7	2419.6	2392.5	2372.4	2352.3	2322.5	2292.6	2268.2
5°	2710.4	2680.0	2629.5	2579.1	2510.7	2442.4	2396.3	2350.1	2288.3	2226.4	2177.1
7.5°	2876.4	2824.3	2753.8	2683.2	2593.7	2504.2	2419.6	2334.9	2240.6	2146.2	2069.1
10°	2982.2	2946.9	2865.5	2784.1	2664.2	2544.4	2426.1	2307.8	2186.3	2064.8	1962.8
12.5°	2992.5	2995.7	2920.9	2846.0	2710.4	2574.7	2431.0	2287.2	2134.2	1981.2	1862.4
15°	2901.9	2957.7	2916.5	2875.3	2738.6	2601.9	2425.0	2248.1	2071.8	1895.5	1758.3
17.5°	2733.7	2853.6	2859.6	2865.5	2728.8	2592.1	2396.3	2200.4	2000.8	1801.1	1656.8
20°	2504.2	2681.1	2741.8	2802.6	2691.4	2580.2	2369.7	2159.2	1935.7	1712.2	1560.8
22.5°	2269.8	2484.7	2595.9	2707.1	2624.6	2542.2	2318.1	2094.1	1858.1	1622.1	1468.6
25°	2002.9	2237.3	2408.2	2579.1	2528.6	2478.2	2257.4	2036.6	1785.4	1534.2	1377.4
27.5°	1770.2	2008.4	2214.5	2420.7	2409.8	2399.0	2179.8	1960.6	1703.5	1446.3	1295.0
30°	1563.0	1784.8	2015.4	2246.0	2272.6	2299.1	2087.6	1876.0	1618.3	1360.6	1214.7
32.5°	1379.6	1573.3	1820.7	2068.0	2120.1	2172.2	1981.2	1790.3	1535.3	1280.3	1139.8
35°	1229.3	1405.1	1652.5	1899.9	1965.0	2030.1	1864.1	1698.0	1449.6	1201.1	1067.1
37.5°	1096.4	1243.4	1484.8	1726.3	1806.0	1885.8	1737.1	1588.5	1355.7	1123.0	999.8
40°	986.3	1104.5	1326.4	1548.3	1640.5	1732.8	1610.2	1487.6	1266.8	1046.0	932.6
42.5°	894.1	999.3	1200.6	1401.8	1490.3	1578.7	1475.1	1371.5	1175.1	978.7	875.1
45°	815.4	899.5	1082.3	1265.1	1349.2	1433.3	1344.3	1255.4	1082.3	909.2	812.7
47.5°	741.6	813.8	970.0	1126.2	1201.1	1276.0	1206.5	1137.1	990.6	844.1	756.8
50°	675.4	733.5	870.2	1006.9	1072.0	1137.1	1075.8	1014.5	894.1	773.6	697.7
52.5°	617.9	665.1	779.6	894.1	949.9	1005.8	953.2	900.6	805.1	709.6	643.4
55°	561.0	601.1	700.4	799.7	837.6	875.6	834.9	794.2	717.2	640.2	584.3
57.5°	507.8	543.6	625.0	706.3	735.6	764.9	728.0	691.2	633.1	575.1	528.4
60°	455.7	485.0	552.8	620.6	638.5	656.4	626.6	596.8	556.1	515.4	473.6
62.5°	407.4	434.0	484.5	534.9	546.8	558.8	536.0	513.2	482.3	451.4	418.8
65°	357.5	377.6	418.8	460.0	467.6	475.2	455.2	435.1	411.8	388.4	364.6
67.5°	311.4	325.5	359.1	392.8	393.3	393.9	377.6	361.3	348.3	335.3	316.3
70°	266.4	279.9	302.2	324.4	325.0	325.5	312.5	299.5	289.7	279.9	265.8
72.5°	220.3	230.0	246.8	263.7	262.6	261.5	253.4	245.2	237.6	230.0	219.7
75°	178.5	186.6	198.0	209.4	206.2	202.9	198.6	194.2	187.7	181.2	174.7
77.5°	140.5	145.4	151.9	158.4	156.2	154.1	150.3	146.5	141.6	136.7	134.0
80°	103.1	105.2	109.6	113.9	112.8	111.8	107.4	103.1	102.0	100.9	97.1
82.5°	70.0	72.7	73.8	74.9	74.3	73.8	70.5	67.3	66.2	65.1	64.6
85°	41.8	42.3	42.9	43.4	41.8	40.1	39.1	38.0	38.0	38.0	37.4
87.5°	19.0	19.5	19.5	19.5	19.0	18.4	17.4	16.3	16.8	17.4	17.4
90°	5.5	4.6	3.7	3.2	2.6	1.7	1.2	0.6	1.2	1.7	2.6
92.5°	44.4	29.1	19.9	14.7	11.8	9.2	6.3	4.3	6.3	9.2	11.8
95°	104.9	61.9	37.5	26.2	18.7	13.8	10.7	9.8	10.7	13.8	18.7
97.5°	116.7	66.8	42.6	30.3	22.8	18.4	15.8	15.6	15.8	18.4	22.8
100°	108.6	66.0	45.8	34.6	27.7	23.6	21.6	21.3	21.6	23.6	27.7
102.5°	101.7	67.1	49.6	39.5	33.4	29.7	27.9	27.4	27.9	29.7	33.4
105°	99.1	69.4	53.9	44.9	39.5	36.0	34.3	33.4	34.3	36.0	39.5
107.5°	98.5	73.2	59.4	51.0	45.8	42.4	40.6	39.8	40.6	42.4	45.8
110°	100.0	78.1	65.1	57.0	52.1	49.0	47.5	46.7	47.5	49.0	52.1



TEST NUMBER: P831116

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	102.9	83.0	71.2	63.4	58.5	55.3	53.9	53.0	53.9	55.3	58.5
115°	106.0	88.5	77.5	69.7	64.8	61.9	60.2	59.1	60.2	61.9	64.8
117.5°	110.1	94.2	83.3	76.1	70.6	68.0	66.6	65.1	66.6	68.0	70.6
120°	114.7	99.7	89.3	82.1	76.6	73.8	72.3	71.5	72.3	73.8	76.6
122.5°	119.0	105.4	95.4	87.6	82.4	79.2	77.8	76.9	77.8	79.2	82.4
125°	123.6	110.9	100.8	93.1	87.6	84.4	82.7	82.1	82.7	84.4	87.6
127.5°	127.3	115.8	106.0	98.2	92.2	89.0	87.0	86.1	87.0	89.0	92.2
130°	131.1	120.1	110.6	102.9	96.8	93.3	90.8	89.9	90.8	93.3	96.8
132.5°	134.5	123.9	114.7	107.2	101.1	96.8	93.9	92.8	93.9	96.8	101.1
135°	137.4	127.6	118.7	110.9	104.9	100.6	97.4	96.2	97.4	100.6	104.9
137.5°	139.7	130.2	121.6	114.4	108.3	103.7	100.6	99.4	100.6	103.7	108.3
140°	141.5	132.8	124.5	117.3	111.5	106.9	104.0	102.6	104.0	106.9	111.5
142.5°	143.2	134.8	126.8	120.1	114.4	110.3	107.2	106.0	107.2	110.3	114.4
145°	144.3	136.6	129.1	122.4	117.5	113.2	110.6	109.8	110.6	113.2	117.5
147.5°	145.2	138.0	131.1	125.3	120.4	116.7	114.1	113.5	114.1	116.7	120.4
150°	145.5	139.4	132.8	127.6	123.6	119.9	117.5	117.3	117.5	119.9	123.6
152.5°	146.1	140.3	134.8	129.9	126.5	123.3	121.0	121.0	121.0	123.3	126.5
155°	146.1	141.5	136.6	132.5	129.4	126.5	124.8	124.8	124.8	126.5	129.4
157.5°	146.4	142.0	138.0	134.8	132.0	129.4	127.9	127.6	127.9	129.4	132.0
160°	146.4	142.9	139.4	136.6	134.5	132.2	131.1	131.1	131.1	132.2	134.5
162.5°	146.1	143.2	140.3	138.0	136.3	134.5	133.7	133.7	133.7	134.5	136.3
165°	145.5	143.5	141.2	139.2	138.0	136.6	136.0	136.3	136.0	136.6	138.0
167.5°	145.2	143.5	141.8	140.3	139.4	138.3	138.0	138.3	138.0	138.3	139.4
170°	144.3	143.2	141.8	141.2	140.6	139.7	139.4	140.0	139.4	139.7	140.6
172.5°	144.1	143.2	142.0	141.8	141.5	140.9	140.9	141.2	140.9	140.9	141.5
175°	143.5	142.9	142.3	142.0	142.0	141.5	141.8	142.0	141.8	141.5	142.0
177.5°	143.2	142.6	142.3	142.3	142.3	142.0	142.3	142.6	142.3	142.0	142.3
180°	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3



TEST NUMBER: P831116

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2	2338.2
2.5°	2243.8	2222.6	2201.5	2185.2	2168.9	2141.3	2113.6	2107.1	2100.6	2091.4	2082.1
5°	2127.7	2075.6	2023.5	1976.9	1930.2	1893.9	1857.5	1833.7	1809.8	1792.4	1775.1
7.5°	1992.1	1914.0	1835.8	1780.5	1725.2	1672.5	1619.9	1603.1	1586.3	1563.5	1540.7
10°	1860.8	1774.5	1688.3	1616.1	1544.0	1492.4	1440.9	1420.3	1399.7	1370.9	1342.2
12.5°	1743.6	1649.2	1554.8	1482.1	1409.4	1359.5	1309.6	1279.8	1249.9	1233.7	1217.4
15°	1621.0	1520.1	1419.2	1351.9	1284.7	1239.6	1194.6	1168.6	1142.5	1126.8	1111.1
17.5°	1512.5	1412.7	1312.9	1248.3	1183.7	1142.5	1101.3	1078.5	1055.7	1043.8	1031.8
20°	1409.4	1311.8	1214.1	1151.2	1088.3	1054.6	1021.0	1006.3	991.7	981.9	972.2
22.5°	1315.0	1219.0	1123.0	1069.3	1015.6	988.4	961.3	951.0	940.7	932.6	924.4
25°	1220.6	1134.9	1049.2	1003.6	958.1	935.8	913.6	903.3	893.0	884.8	876.7
27.5°	1143.6	1061.7	979.8	940.7	901.6	884.3	866.9	858.8	850.7	843.1	835.5
30°	1068.7	995.5	922.3	888.6	855.0	839.3	823.5	815.4	807.2	800.2	793.1
32.5°	999.3	936.4	873.4	842.5	811.6	798.6	785.5	775.8	766.0	760.6	755.2
35°	933.1	876.7	820.3	794.8	769.3	756.3	743.2	735.1	727.0	722.6	718.3
37.5°	876.7	826.2	775.8	751.4	727.0	714.5	702.0	695.0	687.9	686.3	684.6
40°	819.2	775.8	732.4	708.5	684.6	673.8	662.9	658.6	654.3	653.2	652.1
42.5°	771.4	729.1	686.8	665.1	643.4	634.2	625.0	622.8	620.6	622.3	623.9
45°	716.1	680.8	645.6	625.5	605.4	597.8	590.2	588.6	587.0	590.2	593.5
47.5°	669.5	636.9	604.4	585.4	566.4	561.0	555.5	555.0	554.4	558.8	563.1
50°	621.7	590.2	558.8	543.6	528.4	523.5	518.6	520.3	521.9	528.9	536.0
52.5°	577.2	547.9	518.6	504.5	490.4	487.2	483.9	487.7	491.5	499.1	506.7
55°	528.4	501.8	475.2	464.4	453.5	450.3	447.0	454.6	462.2	469.3	476.3
57.5°	481.7	458.4	435.1	425.3	415.6	415.0	414.5	421.5	428.6	436.2	443.8
60°	431.8	412.3	392.8	385.2	377.6	378.7	379.8	387.9	396.0	402.0	408.0
62.5°	386.3	370.0	353.7	346.7	339.6	342.3	345.0	353.2	361.3	368.4	375.4
65°	340.7	327.1	313.6	308.7	303.8	307.6	311.4	318.5	325.5	330.4	335.3
67.5°	297.3	285.9	274.5	270.7	266.9	270.7	274.5	281.6	288.6	293.5	298.4
70°	251.7	242.5	233.3	230.6	227.9	232.2	236.5	242.5	248.5	253.4	258.2
72.5°	209.4	202.4	195.3	194.8	194.2	198.0	201.8	207.8	213.7	217.0	220.3
75°	168.2	164.4	160.6	160.0	159.5	163.3	167.1	170.3	173.6	176.3	179.0
77.5°	131.3	128.0	124.8	125.3	125.9	128.6	131.3	134.5	137.8	139.4	141.1
80°	93.3	92.2	91.1	92.2	93.3	95.5	97.7	99.8	102.0	103.1	104.2
82.5°	64.0	62.9	61.8	63.5	65.1	66.7	68.4	70.0	71.6	72.2	72.7
85°	36.9	38.5	40.1	40.1	40.1	40.7	41.2	41.8	42.3	41.8	41.2
87.5°	17.4	17.9	18.4	18.4	18.4	19.0	19.5	19.5	19.5	19.0	18.4
90°	3.2	3.7	4.6	5.5	6.3	7.2	6.9	7.2	7.5	7.8	8.4
92.5°	14.7	19.9	29.1	44.4	59.4	53.6	40.0	28.5	22.2	19.3	17.3
95°	26.2	37.5	61.9	104.9	152.1	170.8	138.6	103.7	70.3	55.0	44.7
97.5°	30.3	42.6	66.8	116.7	196.2	262.8	271.7	238.3	179.8	141.8	108.9
100°	34.6	45.8	66.0	108.6	184.4	272.8	329.6	339.7	316.3	282.6	241.7
102.5°	39.5	49.6	67.1	101.7	167.1	254.1	332.5	373.4	378.3	362.2	340.0
105°	44.9	53.9	69.4	99.1	153.6	231.6	314.3	374.5	403.4	408.8	401.3
107.5°	51.0	59.4	73.2	98.5	143.8	211.8	288.4	357.3	402.5	425.0	432.7
110°	57.0	65.1	78.1	100.0	138.6	195.3	264.2	330.2	383.2	419.5	439.7

TEST NUMBER: P831116

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	63.4	71.2	83.0	102.9	135.7	184.4	243.2	303.4	357.8	399.6	427.0
115°	69.7	77.5	88.5	106.0	135.4	177.2	227.0	280.3	330.5	372.8	404.2
117.5°	76.1	83.3	94.2	110.1	135.7	172.3	216.4	262.5	306.8	345.7	378.3
120°	82.1	89.3	99.7	114.7	136.9	169.1	208.3	248.9	287.8	322.4	351.5
122.5°	87.6	95.4	105.4	119.0	138.9	167.1	201.7	238.3	272.6	304.0	330.5
125°	93.1	100.8	110.9	123.6	140.9	165.4	196.2	229.0	260.5	288.1	311.2
127.5°	98.2	106.0	115.8	127.3	143.2	164.5	191.0	220.7	249.2	274.6	295.9
130°	102.9	110.6	120.1	131.1	145.5	163.6	187.0	212.9	238.8	262.2	281.8
132.5°	107.2	114.7	123.9	134.5	147.2	163.4	183.2	205.7	229.0	250.4	268.8
135°	110.9	118.7	127.6	137.4	149.0	163.1	180.1	199.4	219.8	238.6	255.0
137.5°	114.4	121.6	130.2	139.7	150.1	162.5	177.2	193.3	210.6	227.3	242.0
140°	117.3	124.5	132.8	141.5	151.3	162.2	174.6	188.1	202.8	216.7	229.0
142.5°	120.1	126.8	134.8	143.2	152.1	161.6	172.3	183.2	195.3	206.9	217.2
145°	122.4	129.1	136.6	144.3	152.4	161.1	170.3	179.5	189.0	198.2	206.6
147.5°	125.3	131.1	138.0	145.2	152.4	160.2	168.3	176.3	184.1	191.9	197.9
150°	127.6	132.8	139.4	145.5	152.4	159.0	166.2	172.9	179.5	185.5	191.0
152.5°	129.9	134.8	140.3	146.1	151.5	157.6	163.9	169.7	175.2	180.4	184.7
155°	132.5	136.6	141.5	146.1	151.0	155.9	161.6	166.5	171.1	175.5	178.9
157.5°	134.8	138.0	142.0	146.4	150.1	154.4	159.0	163.1	167.1	170.6	173.4
160°	136.6	139.4	142.9	146.4	149.5	152.7	156.4	160.2	163.4	166.2	168.3
162.5°	138.0	140.3	143.2	146.1	148.4	151.0	153.9	156.7	159.3	161.9	163.6
165°	139.2	141.2	143.5	145.5	147.2	149.2	151.5	153.9	155.6	157.6	159.0
167.5°	140.3	141.8	143.5	145.2	146.1	147.5	149.2	151.3	152.7	153.9	155.0
170°	141.2	141.8	143.2	144.3	144.9	145.8	147.2	148.7	149.5	150.7	151.3
172.5°	141.8	142.0	143.2	144.1	144.1	144.3	145.2	146.4	146.9	147.8	148.1
175°	142.0	142.3	142.9	143.5	143.2	143.2	143.8	144.3	144.6	145.2	145.2
177.5°	142.3	142.3	142.6	143.2	142.6	142.3	142.6	142.9	143.2	143.5	143.5
180°	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3	142.3



TEST NUMBER: P831116

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2338.2	2338.2	2338.2	2338.2
2.5°	2078.3	2074.5	2059.4	2044.2
5°	1762.1	1749.0	1744.7	1740.4
7.5°	1539.6	1538.5	1515.8	1493.0
10°	1343.8	1345.4	1324.8	1304.2
12.5°	1203.8	1190.3	1188.6	1187.0
15°	1098.6	1086.1	1083.9	1081.8
17.5°	1024.3	1016.7	1014.5	1012.3
20°	967.8	963.5	959.7	955.9
22.5°	919.0	913.6	910.3	907.1
25°	871.8	866.9	865.8	864.8
27.5°	829.5	823.5	823.5	823.5
30°	789.3	785.5	783.9	782.3
32.5°	751.9	748.7	748.7	748.7
35°	716.7	715.0	712.9	710.7
37.5°	684.6	684.6	683.6	682.5
40°	653.7	655.3	655.3	655.3
42.5°	625.5	627.1	627.1	627.1
45°	596.2	598.9	600.0	601.1
47.5°	567.5	571.8	572.9	574.0
50°	539.3	542.5	543.0	543.6
52.5°	510.5	514.3	517.0	519.7
55°	480.1	483.9	485.5	487.2
57.5°	447.6	451.4	451.9	452.5
60°	411.8	415.6	416.6	417.7
62.5°	377.6	379.8	380.8	381.9
65°	338.5	341.8	343.9	346.1
67.5°	301.1	303.8	303.8	303.8
70°	259.3	260.4	262.0	263.7
72.5°	220.8	221.3	221.3	221.3
75°	180.1	181.2	181.7	182.3
77.5°	141.6	142.1	142.1	142.1
80°	103.6	103.1	103.1	103.1
82.5°	71.1	69.4	69.4	69.4
85°	40.7	40.1	40.7	41.2
87.5°	18.4	18.4	18.4	18.4
90°	8.1	8.4	8.6	8.4
92.5°	16.7	15.6	15.8	15.3
95°	39.2	36.6	34.6	33.4
97.5°	89.6	78.7	71.7	68.6
100°	212.6	191.6	180.4	180.6
102.5°	318.9	303.4	294.4	286.1
105°	388.1	377.1	367.9	366.5
107.5°	431.0	425.8	422.1	418.9
110°	447.7	450.0	449.5	448.9



TEST NUMBER: P831116

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	443.4	451.8	454.6	454.9
115°	425.8	438.5	444.3	445.7
117.5°	400.8	414.9	423.5	425.5
120°	374.3	390.4	397.3	399.0
122.5°	350.1	364.2	372.0	374.3
125°	329.6	342.3	349.5	351.5
127.5°	312.6	323.5	330.2	331.9
130°	297.0	307.4	313.5	315.8
132.5°	282.9	293.3	298.5	299.9
135°	269.1	277.7	282.9	284.9
137.5°	254.1	263.0	267.4	269.1
140°	240.0	248.1	252.7	252.4
142.5°	226.2	233.1	237.1	236.8
145°	213.8	219.8	222.1	222.7
147.5°	203.7	208.0	210.3	210.6
150°	195.3	198.5	200.2	200.2
152.5°	187.8	190.7	191.6	191.6
155°	181.5	183.8	184.4	184.7
157.5°	175.7	177.5	178.1	178.1
160°	170.3	172.0	172.0	171.7
162.5°	164.8	166.2	166.2	166.0
165°	160.2	161.3	161.1	161.1
167.5°	155.6	156.4	156.2	156.2
170°	151.5	152.1	151.8	151.8
172.5°	148.1	148.7	148.1	147.8
175°	145.2	145.5	145.2	144.9
177.5°	143.2	143.5	142.9	142.9
180°	142.3	142.3	142.3	142.3



TEST NUMBER: P831116

CATALOG NUMBER: S123DIP-S1000D365U930-4F0-1E-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	17.07	18.18	17.75	18.88	19.69	19.31	20.42	19.99	21.12	21.93
	3H	18.73	19.73	19.43	20.44	21.28	20.75	21.75	21.45	22.45	23.30
	4H	19.32	20.26	20.04	20.98	21.84	21.21	22.15	21.93	22.87	23.73
	6H	19.71	20.57	20.43	21.30	22.17	21.50	22.37	22.23	23.09	23.96
	8H	19.81	20.64	20.55	21.38	22.26	21.57	22.39	22.31	23.14	24.01
	12H	19.86	20.65	20.61	21.39	22.29	21.59	22.38	22.34	23.12	24.02
4H	2H	17.67	18.62	18.39	19.33	20.19	19.50	20.44	20.22	21.16	22.01
	3H	19.52	20.31	20.25	21.06	21.94	21.14	21.92	21.87	22.68	23.55
	4H	20.23	20.94	20.98	21.70	22.60	21.73	22.44	22.48	23.20	24.10
	6H	20.72	21.33	21.49	22.11	23.03	22.15	22.76	22.92	23.54	24.46
	8H	20.86	21.44	21.63	22.21	23.14	22.27	22.84	23.04	23.62	24.54
	12H	20.94	21.45	21.73	22.25	23.18	22.32	22.84	23.11	23.64	24.57
8H	4H	20.52	21.09	21.28	21.86	22.79	21.86	22.43	22.63	23.21	24.13
	6H	21.11	21.59	21.91	22.41	23.33	22.37	22.84	23.17	23.66	24.59
	8H	21.32	21.74	22.13	22.56	23.50	22.55	22.97	23.36	23.79	24.73
	12H	21.46	21.83	22.27	22.63	23.64	22.66	23.03	23.47	23.84	24.84
12H	4H	20.53	21.04	21.32	21.84	22.77	21.84	22.36	22.63	23.16	24.09
	6H	21.17	21.59	21.98	22.40	23.35	22.38	22.80	23.19	23.62	24.57
	8H	21.41	21.78	22.22	22.59	23.59	22.59	22.97	23.41	23.77	24.77