

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: P831868

Luminaire Tested: S123RDIP-S1000D585U940-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831868
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDIP-S1000D585U940-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

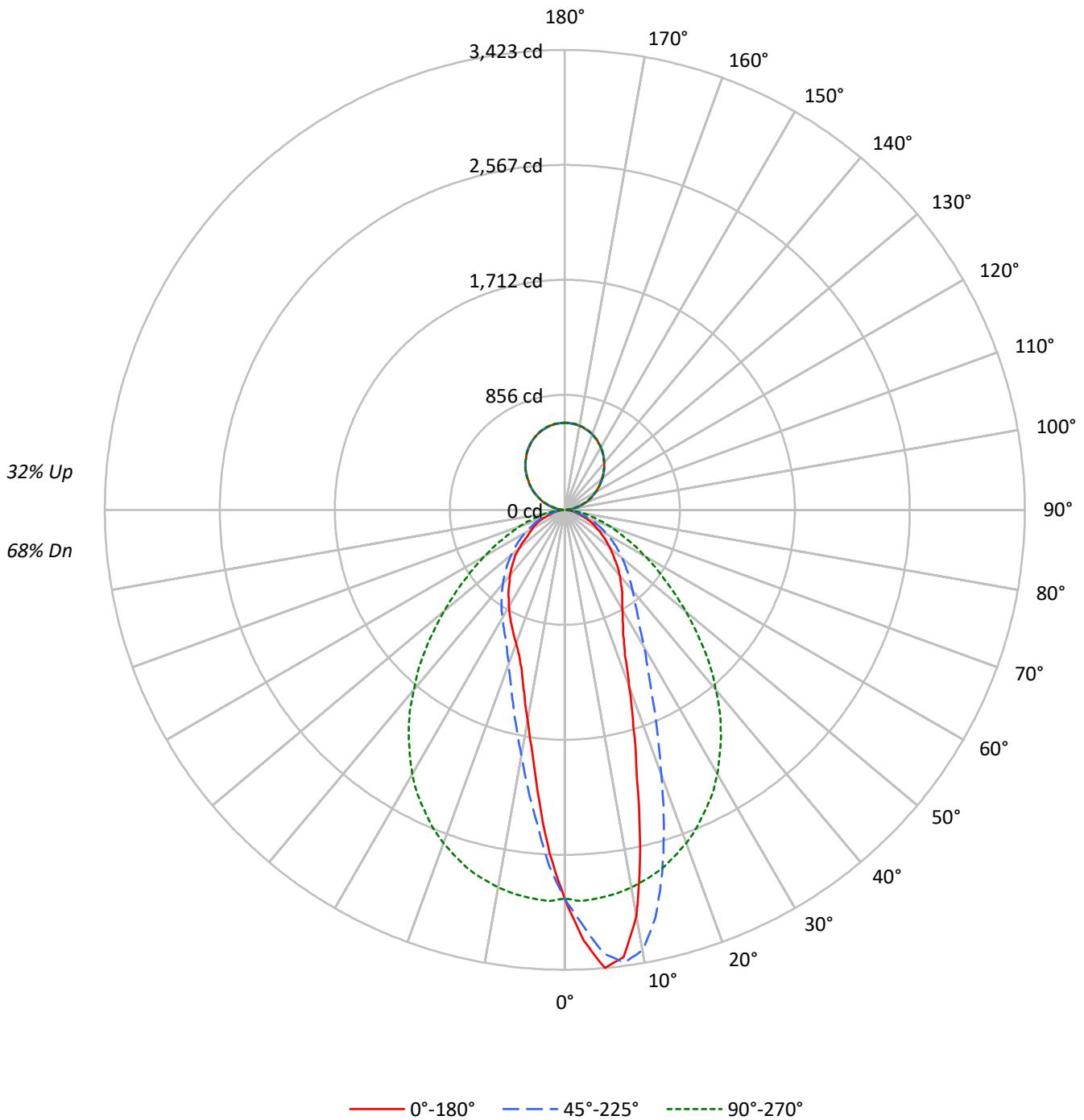
Lumens per Lamp: N/A
Luminaire Lumens: 5631.9 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 50.3
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				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	111	111	111	111	105	105	105	105	93	93	93	83	83	83	73	73	73	68		
1	103	99	95	92	97	94	90	88	84	81	79	74	73	71	66	65	64	60		
2	95	88	82	77	89	83	78	74	75	71	67	67	64	61	60	57	55	52		
3	87	78	71	66	82	74	68	63	67	62	58	60	56	53	54	51	49	45		
4	81	70	63	57	76	67	60	55	61	55	51	55	50	47	49	46	43	40		
5	75	63	56	50	70	61	54	48	55	49	45	50	45	42	45	41	38	36		
6	69	58	50	44	65	55	48	43	50	44	40	46	41	37	41	38	35	32		
7	65	53	45	40	61	51	44	39	46	40	36	42	37	34	38	34	32	29		
8	60	49	41	36	57	46	40	35	43	37	33	39	34	31	36	32	29	27		
9	57	45	38	33	54	43	36	32	40	34	30	36	32	28	33	29	27	25		
10	53	42	35	30	51	40	33	29	37	31	28	34	29	26	31	27	25	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	31146	31146	31146	31146	31146
5°	36983	35804	31342	25337	23523
10°	33507	36366	31186	20300	17415
15°	23071	31181	30857	16592	13776
20°	16049	24007	30237	13991	12109
25°	12231	18296	29337	12435	11159
30°	10647	14628	28209	11545	10337
35°	9775	12339	26612	10796	9587
40°	8918	11019	24522	10061	8901
45°	8054	10077	22267	9363	8217
50°	7311	9297	19609	8683	7371
55°	6613	8539	17055	8015	6322
60°	5924	7765	14813	7279	5976
65°	5468	6890	12753	6543	5652
70°	4444	5954	11125	5917	4592
75°	3897	4737	9424	4907	4047
80°	3527	4011	7724	4116	3825
85°	3223	3520	5866	3742	3520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 23496 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.7	4.7
10°-20°	610.3	10.8
20°-30°	700.2	12.4
30°-40°	690.2	12.3
40°-50°	608.7	10.8
50°-60°	468.3	8.3
60°-70°	307.9	5.5
70°-80°	149.5	2.7
80°-90°	39.1	0.7
90°-100°	41.7	0.7
100°-110°	126.2	2.2
110°-120°	214.8	3.8
120°-130°	282.5	5.0
130°-140°	317.6	5.6
140°-150°	312.2	5.5
150°-160°	262.9	4.7
160°-170°	175.0	3.1
170°-180°	61.3	1.1
0°-30°	1574.3	28.0
0°-40°	2264.5	40.2
0°-60°	3341.4	59.3
0°-90°	3837.9	68.1
90°-120°	382.6	6.8
90°-150°	1294.9	23.0
90°-180°	1794.0	31.9
0°-180°	5631.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2894	2894	2894	2894	2894	
5°	3423	3314	2901	2345	2177	313
15°	2070	2798	2769	1489	1236	584
25°	1030	1540	2470	1047	940	486
35°	744	939	2025	822	730	464
45°	529	662	1463	615	540	411
55°	352	455	909	427	337	316
65°	215	270	501	257	222	210
75°	94	114	227	118	97	101
85°	26	28	48	30	28	28
90°	15	12	0	12	15	9
95°	40	38	30	38	40	40
105°	121	120	114	120	121	128
115°	217	217	216	217	217	215
125°	313	317	316	317	313	280
135°	410	413	410	413	410	315
145°	498	500	498	500	498	311
155°	569	571	570	571	569	262
165°	619	620	621	620	619	175
175°	643	644	646	644	643	61
180°	648	648	648	648	648	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6
2.5°	3206.8	3196.7	3186.7	3183.7	3180.7	3171.2	3161.7	3140.4	3119.0	3097.1	3075.1
5°	3422.8	3423.9	3425.1	3422.2	3419.2	3406.7	3394.3	3368.2	3342.1	3313.6	3285.1
7.5°	3356.3	3375.3	3394.3	3397.8	3401.4	3410.9	3420.4	3414.4	3408.5	3397.8	3387.2
10°	3065.6	3064.5	3063.3	3084.6	3106.0	3169.5	3232.9	3265.6	3298.2	3327.2	3356.3
12.5°	2591.1	2592.9	2594.6	2664.6	2734.6	2794.6	2854.5	2937.5	3020.6	3110.1	3199.7
15°	2070.3	2099.3	2128.4	2190.7	2253.0	2343.1	2433.3	2544.8	2656.3	2798.1	2939.9
17.5°	1700.1	1712.6	1725.0	1784.9	1844.8	1930.3	2015.7	2142.0	2268.4	2451.1	2633.8
20°	1401.1	1412.4	1423.7	1467.0	1510.3	1592.1	1674.0	1794.4	1914.8	2095.8	2276.7
22.5°	1169.8	1191.7	1213.7	1242.7	1271.8	1331.1	1390.5	1513.2	1636.0	1800.9	1965.9
25°	1029.8	1039.9	1050.0	1074.9	1099.8	1156.7	1213.7	1295.0	1376.2	1540.5	1704.9
27.5°	934.9	937.8	940.8	959.2	977.6	1014.4	1051.1	1126.5	1201.8	1337.1	1472.3
30°	856.6	861.9	867.3	881.5	895.7	922.4	949.1	1002.5	1055.9	1176.9	1297.9
32.5°	796.1	799.0	802.0	813.9	825.7	845.3	864.9	907.0	949.1	1041.7	1134.2
35°	743.9	744.5	745.1	754.0	762.9	781.8	800.8	835.8	870.8	939.0	1007.2
37.5°	684.6	688.7	692.9	699.4	705.9	722.5	739.1	767.6	796.1	852.4	908.8
40°	634.7	638.3	641.8	649.6	657.3	670.3	683.4	709.5	735.6	784.2	832.8
42.5°	584.9	587.3	589.6	597.4	605.1	621.1	637.1	657.9	678.6	719.0	759.3
45°	529.1	535.1	541.0	549.3	557.6	571.2	584.9	606.2	627.6	662.0	696.4
47.5°	482.9	485.8	488.8	495.9	503.0	519.6	536.3	555.2	574.2	606.2	638.3
50°	436.6	437.8	439.0	445.5	452.0	466.8	481.7	503.6	525.6	555.2	584.9
52.5°	392.7	395.7	398.6	405.2	411.7	421.8	431.8	454.4	476.9	506.0	535.1
55°	352.4	354.1	355.9	360.7	365.4	377.3	389.1	408.7	428.3	455.0	481.7
57.5°	314.4	316.8	319.1	322.7	326.3	336.9	347.6	364.8	382.0	408.7	435.4
60°	275.2	278.2	281.2	285.3	289.5	297.8	306.1	321.5	336.9	360.7	384.4
62.5°	246.8	247.4	248.0	251.5	255.1	261.0	266.9	279.4	291.9	315.6	339.3
65°	214.7	216.5	218.3	220.1	221.9	226.6	231.3	242.0	252.7	270.5	288.3
67.5°	181.5	183.3	185.1	188.0	191.0	195.2	199.3	206.4	213.6	230.2	246.8
70°	141.2	141.2	141.2	145.9	150.7	157.8	164.9	170.2	175.6	189.2	202.9
72.5°	115.1	115.7	116.3	116.9	117.5	121.6	125.8	134.7	143.6	151.9	160.2
75°	93.7	94.3	94.9	95.5	96.1	97.3	98.5	101.4	104.4	113.9	123.4
77.5°	74.7	75.3	75.9	76.5	77.1	78.3	79.5	80.7	81.9	85.4	89.0
80°	56.9	57.5	58.1	58.7	59.3	59.9	60.5	61.7	62.9	64.7	66.4
82.5°	41.5	41.5	41.5	41.5	41.5	42.7	43.9	43.9	43.9	45.1	46.3
85°	26.1	26.1	26.1	26.7	27.3	27.3	27.3	27.9	28.5	28.5	28.5
87.5°	11.9	11.3	10.7	11.3	11.9	11.9	11.9	12.5	13.1	13.1	13.1
90°	15.3	15.0	14.8	14.6	14.4	14.0	13.6	13.1	12.7	12.2	10.7
92.5°	21.9	22.1	22.3	22.5	22.8	22.7	22.4	22.0	21.7	21.4	20.7
95°	39.7	39.7	39.7	39.7	39.7	39.4	39.0	38.5	38.1	37.6	36.7
97.5°	57.0	57.1	57.2	57.3	57.4	57.2	56.6	56.1	55.5	54.9	54.3
100°	77.3	77.1	76.9	76.6	76.4	76.1	75.8	75.4	75.1	74.8	74.2
102.5°	98.2	98.3	98.4	98.5	98.6	98.5	98.2	97.8	97.5	97.1	96.4
105°	121.1	120.8	120.6	120.4	120.1	120.0	120.0	120.0	120.0	120.0	119.0
107.5°	144.4	144.6	144.7	144.8	144.9	144.8	144.4	144.1	143.8	143.4	143.0
110°	168.4	168.6	168.8	169.0	169.3	169.1	168.7	168.2	167.8	167.3	167.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	193.8	193.8	193.8	193.8	193.8	193.5	192.9	192.4	191.8	191.2	191.2
115°	216.7	216.8	216.9	217.0	217.1	217.1	217.0	216.9	216.8	216.7	216.9
117.5°	240.1	240.4	240.7	241.1	241.4	241.6	241.6	241.6	241.6	241.6	241.8
120°	265.0	265.2	265.4	265.7	265.9	266.1	266.2	266.3	266.4	266.5	267.1
122.5°	288.9	289.2	289.6	289.9	290.3	290.6	290.9	291.3	291.6	291.9	292.2
125°	312.8	313.3	313.7	314.2	314.6	315.1	315.5	316.0	316.4	316.9	317.1
127.5°	336.7	337.2	337.6	338.1	338.5	339.1	339.8	340.4	341.1	341.8	342.0
130°	360.1	360.9	361.7	362.5	363.3	363.9	364.3	364.8	365.2	365.7	366.0
132.5°	384.5	385.1	385.6	386.2	386.8	387.3	387.9	388.5	389.0	389.6	389.8
135°	410.0	410.2	410.4	410.6	410.9	411.2	411.6	412.1	412.6	413.0	413.1
137.5°	432.3	432.7	433.0	433.3	433.7	434.1	434.7	435.3	435.8	436.4	436.1
140°	454.2	455.0	455.8	456.6	457.4	457.8	457.9	458.0	458.2	458.3	458.2
142.5°	476.6	477.1	477.7	478.3	478.8	479.2	479.3	479.4	479.5	479.6	479.4
145°	497.9	498.4	498.8	499.3	499.8	500.0	500.1	500.3	500.4	500.5	500.1
147.5°	517.3	517.9	518.6	519.3	520.0	520.3	520.3	520.3	520.3	520.3	520.0
150°	535.6	536.3	536.9	537.6	538.3	538.6	538.6	538.6	538.6	538.6	538.4
152.5°	553.4	553.9	554.5	555.1	555.6	555.8	555.6	555.4	555.1	554.9	554.8
155°	569.1	569.9	570.7	571.5	572.3	572.5	572.0	571.6	571.1	570.7	570.6
157.5°	583.9	584.6	585.3	585.9	586.6	586.7	586.3	585.8	585.4	584.9	584.8
160°	598.1	598.6	599.0	599.5	599.9	599.9	599.3	598.8	598.2	597.6	597.6
162.5°	608.8	609.6	610.4	611.2	612.0	612.1	611.5	611.0	610.4	609.8	609.7
165°	619.0	619.8	620.6	621.4	622.2	622.2	621.5	620.9	620.2	619.5	619.5
167.5°	628.1	628.8	629.5	630.2	630.9	630.9	630.2	629.5	628.8	628.1	628.0
170°	634.8	635.6	636.3	637.1	637.9	637.9	637.1	636.3	635.6	634.8	634.8
172.5°	639.8	640.6	641.4	642.2	643.0	643.1	642.4	641.7	641.0	640.4	640.4
175°	643.4	644.2	645.0	645.8	646.6	646.6	646.0	645.3	644.6	643.9	643.9
177.5°	645.4	646.2	647.0	647.8	648.6	648.7	648.0	647.3	646.6	646.0	646.0
180°	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6
2.5°	3072.2	3069.2	3040.7	3012.3	2984.4	2956.5	2935.7	2915.0	2880.0	2845.0	2823.0
5°	3262.6	3240.0	3195.0	3149.9	3082.3	3014.6	2957.7	2900.7	2828.4	2756.0	2695.5
7.5°	3368.8	3350.4	3295.8	3241.2	3151.7	3062.1	2973.1	2884.1	2777.4	2670.6	2579.2
10°	3371.7	3387.2	3342.1	3297.0	3196.1	3095.3	2974.3	2853.3	2709.7	2566.2	2448.1
12.5°	3266.1	3332.6	3323.1	3313.6	3211.0	3108.4	2961.2	2814.1	2638.0	2461.8	2314.1
15°	3068.6	3197.3	3235.3	3273.3	3188.4	3103.6	2936.3	2769.0	2562.0	2355.0	2185.3
17.5°	2814.1	2994.5	3094.7	3195.0	3133.3	3071.6	2888.3	2705.0	2471.9	2238.7	2054.2
20°	2512.8	2748.9	2906.1	3063.3	3040.7	3018.2	2829.0	2639.7	2388.2	2136.7	1936.8
22.5°	2215.0	2464.1	2681.3	2898.4	2921.5	2944.6	2753.6	2562.6	2287.4	2012.1	1808.7
25°	1958.1	2211.4	2470.1	2728.7	2780.9	2833.1	2651.6	2470.1	2184.7	1899.4	1697.1
27.5°	1713.2	1954.0	2238.7	2523.5	2618.4	2713.3	2547.2	2381.1	2083.9	1786.7	1585.0
30°	1513.2	1728.6	2019.2	2309.9	2442.2	2574.5	2422.0	2269.6	1974.8	1679.9	1482.4
32.5°	1327.0	1519.8	1811.6	2103.5	2257.1	2410.8	2279.1	2147.4	1863.8	1580.3	1385.1
35°	1179.9	1352.5	1624.8	1897.0	2069.1	2241.1	2133.1	2025.2	1748.2	1471.1	1286.6
37.5°	1053.5	1198.3	1453.9	1709.6	1892.3	2075.0	1984.8	1894.7	1634.3	1373.8	1199.4
40°	949.1	1065.4	1303.3	1541.1	1720.3	1899.4	1822.3	1745.2	1512.1	1278.9	1115.8
42.5°	859.5	959.8	1173.3	1386.9	1551.2	1715.5	1664.5	1613.5	1402.3	1191.1	1039.9
45°	780.6	864.9	1052.9	1241.0	1392.2	1543.5	1503.2	1462.8	1280.7	1098.6	959.8
47.5°	710.7	783.0	950.9	1118.8	1254.6	1390.5	1353.1	1315.7	1165.0	1014.4	888.0
50°	646.6	708.3	848.3	988.3	1110.5	1232.7	1201.8	1171.0	1046.4	921.8	812.7
52.5°	586.1	637.1	762.9	888.6	987.1	1085.6	1061.8	1038.1	942.0	845.9	746.8
55°	528.5	575.4	681.6	787.8	872.0	956.2	932.5	908.8	834.0	759.3	672.1
57.5°	476.3	517.3	603.3	689.3	756.3	823.4	812.1	800.8	738.5	676.2	604.5
60°	421.2	457.9	532.1	606.2	660.2	714.2	701.2	688.1	643.6	599.1	537.4
62.5°	371.9	404.6	463.9	523.2	567.1	611.0	601.5	592.0	558.2	524.4	473.4
65°	320.3	352.4	400.4	448.5	482.9	517.3	509.0	500.7	475.2	449.6	408.7
67.5°	273.5	300.2	341.7	383.2	406.3	429.5	424.7	420.0	400.4	380.8	348.8
70°	226.0	249.1	283.5	318.0	334.0	350.0	351.8	353.5	335.7	318.0	294.2
72.5°	178.6	196.9	229.0	261.0	273.5	285.9	285.3	284.7	274.1	263.4	242.0
75°	137.0	150.7	175.6	200.5	211.2	221.9	224.2	226.6	216.5	206.4	194.6
77.5°	98.5	108.0	126.9	145.9	157.8	169.7	170.8	172.0	167.3	162.5	151.3
80°	69.4	72.4	84.2	96.1	108.6	121.0	122.8	124.6	119.8	115.1	108.0
82.5°	48.0	49.8	54.0	58.1	68.2	78.3	80.7	83.0	80.7	78.3	70.6
85°	29.1	29.7	31.4	33.2	38.0	42.7	45.1	47.5	46.3	45.1	40.9
87.5°	13.1	13.1	13.6	14.2	15.4	16.6	19.6	22.5	20.8	19.0	17.2
90°	9.3	7.8	6.3	5.0	3.9	2.8	1.6	0.5	1.6	2.8	3.9
92.5°	20.0	19.3	18.6	18.0	17.3	16.6	15.9	15.3	15.9	16.6	17.3
95°	35.8	34.9	34.0	33.2	32.4	31.6	30.8	30.0	30.8	31.6	32.4
97.5°	53.6	52.9	52.2	51.6	51.0	50.5	49.9	49.3	49.9	50.5	51.0
100°	73.6	73.1	72.5	71.9	71.2	70.5	69.9	69.2	69.9	70.5	71.2
102.5°	95.6	94.8	94.0	93.4	93.1	92.7	92.4	92.1	92.4	92.7	93.1
105°	118.0	117.0	116.0	115.3	115.1	114.9	114.7	114.4	114.7	114.9	115.1
107.5°	142.5	142.1	141.6	141.3	141.2	141.1	141.0	140.9	141.0	141.1	141.2
110°	166.9	166.7	166.4	166.2	166.0	165.8	165.5	165.3	165.5	165.8	166.0



TEST NUMBER: P831868

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	191.2	191.2	191.2	191.2	191.1	191.0	190.8	190.7	190.8	191.0	191.1
115°	217.1	217.4	217.6	217.5	217.2	216.8	216.5	216.2	216.5	216.8	217.2
117.5°	242.0	242.3	242.5	242.6	242.4	242.3	242.2	242.1	242.2	242.3	242.4
120°	267.6	268.2	268.8	268.7	268.0	267.4	266.7	266.0	266.7	267.4	268.0
122.5°	292.4	292.6	292.9	292.7	292.3	291.8	291.4	290.9	291.4	291.8	292.3
125°	317.3	317.6	317.8	317.7	317.4	317.0	316.7	316.4	316.7	317.0	317.4
127.5°	342.2	342.5	342.7	342.5	341.8	341.1	340.4	339.8	340.4	341.1	341.8
130°	366.4	366.7	367.1	366.8	365.9	365.0	364.1	363.2	364.1	365.0	365.9
132.5°	390.1	390.3	390.5	390.2	389.3	388.4	387.5	386.6	387.5	388.4	389.3
135°	413.2	413.3	413.5	413.2	412.5	411.8	411.1	410.5	411.1	411.8	412.5
137.5°	435.7	435.4	435.0	434.6	434.0	433.5	432.9	432.3	432.9	433.5	434.0
140°	458.0	457.9	457.8	457.5	456.9	456.3	455.8	455.2	455.8	456.3	456.9
142.5°	479.2	479.0	478.7	478.3	477.8	477.2	476.6	476.1	476.6	477.2	477.8
145°	499.8	499.5	499.1	498.8	498.6	498.4	498.2	497.9	498.2	498.4	498.6
147.5°	519.6	519.3	519.0	518.6	518.1	517.7	517.2	516.8	517.2	517.7	518.1
150°	538.2	538.0	537.7	537.5	537.3	537.0	536.8	536.6	536.8	537.0	537.3
152.5°	554.7	554.6	554.5	554.2	553.9	553.6	553.2	552.9	553.2	553.6	553.9
155°	570.4	570.3	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
157.5°	584.7	584.6	584.5	584.5	584.6	584.7	584.8	584.9	584.8	584.7	584.6
160°	597.6	597.6	597.6	597.7	598.0	598.2	598.4	598.6	598.4	598.2	598.0
162.5°	609.6	609.5	609.4	609.5	609.8	610.2	610.5	610.9	610.5	610.2	609.8
165°	619.5	619.5	619.5	619.7	620.0	620.4	620.7	621.0	620.7	620.4	620.0
167.5°	627.9	627.8	627.7	627.9	628.3	628.8	629.2	629.7	629.2	628.8	628.3
170°	634.8	634.8	634.8	635.0	635.4	635.9	636.3	636.8	636.3	635.9	635.4
172.5°	640.4	640.4	640.4	640.6	641.0	641.5	641.9	642.4	641.9	641.5	641.0
175°	643.9	643.9	643.9	644.1	644.6	645.0	645.5	646.0	645.5	645.0	644.6
177.5°	646.0	646.0	646.0	646.2	646.6	647.1	647.5	648.0	647.5	647.1	646.6
180°	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5



TEST NUMBER: P831868

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6
2.5°	2801.1	2767.3	2733.5	2709.1	2684.8	2654.6	2624.3	2623.1	2621.9	2599.4	2576.9
5°	2635.0	2576.3	2517.5	2460.0	2402.5	2344.9	2287.4	2274.3	2261.3	2241.7	2222.1
7.5°	2487.9	2394.1	2300.4	2226.9	2153.3	2095.8	2038.2	1999.1	1959.9	1929.7	1899.4
10°	2330.1	2213.8	2097.5	2008.6	1919.6	1857.3	1795.0	1749.9	1704.9	1683.5	1662.1
12.5°	2166.4	2040.0	1913.7	1826.5	1739.3	1664.5	1589.8	1548.8	1507.9	1478.2	1448.6
15°	2015.7	1879.8	1744.0	1651.5	1558.9	1488.9	1418.9	1378.0	1337.1	1307.4	1277.7
17.5°	1869.8	1732.7	1595.7	1502.0	1408.3	1344.8	1281.3	1241.6	1201.8	1183.4	1165.0
20°	1736.9	1598.7	1460.5	1372.1	1283.7	1221.4	1159.1	1137.8	1116.4	1099.2	1082.0
22.5°	1605.2	1472.3	1339.4	1254.6	1169.8	1124.7	1079.6	1062.4	1045.2	1032.2	1019.1
25°	1494.9	1362.6	1230.3	1156.1	1082.0	1047.0	1012.0	1000.7	989.5	976.4	963.4
27.5°	1383.3	1257.6	1131.8	1072.5	1013.2	984.7	956.2	942.0	927.8	917.1	906.4
30°	1284.9	1168.6	1052.3	1003.1	953.9	928.9	904.0	888.6	873.2	863.1	853.0
32.5°	1190.0	1086.7	983.5	941.4	899.3	875.0	850.6	835.8	821.0	809.1	797.3
35°	1102.2	1012.6	923.0	884.5	845.9	821.6	797.3	782.4	767.6	755.7	743.9
37.5°	1025.0	943.8	862.5	826.3	790.1	768.8	747.4	732.0	716.6	704.1	691.7
40°	952.7	880.9	809.1	774.1	739.1	716.0	692.9	679.2	665.6	654.3	643.0
42.5°	888.6	822.8	756.9	722.5	688.1	666.2	644.2	628.2	612.2	605.7	599.1
45°	821.0	762.9	704.7	671.5	638.3	615.1	592.0	578.4	564.7	558.8	552.9
47.5°	761.7	707.7	653.7	621.1	588.5	567.7	546.9	536.3	525.6	517.3	509.0
50°	703.5	651.3	599.1	567.7	536.3	518.5	500.7	487.6	474.6	468.6	462.7
52.5°	647.8	600.3	552.9	520.8	488.8	471.6	454.4	443.1	431.8	419.4	406.9
55°	584.9	543.4	501.8	473.4	444.9	427.1	409.3	396.3	383.2	370.2	357.1
57.5°	532.7	491.8	450.8	425.3	399.8	382.6	365.4	351.2	336.9	326.3	315.6
60°	475.7	440.2	404.6	379.6	354.7	338.1	321.5	307.9	294.2	288.9	283.5
62.5°	422.4	389.1	355.9	334.0	312.0	296.0	280.0	271.1	262.2	258.6	255.1
65°	367.8	339.3	310.8	290.7	270.5	256.9	243.2	239.1	234.9	231.9	229.0
67.5°	316.8	292.4	268.1	250.3	232.5	223.0	213.6	208.8	204.1	200.5	196.9
70°	270.5	249.1	227.8	212.4	196.9	188.0	179.1	175.0	170.8	164.3	157.8
72.5°	220.7	204.1	187.5	175.6	163.7	156.0	148.3	140.0	131.7	125.8	119.8
75°	182.7	166.1	149.5	138.2	126.9	118.0	109.1	106.2	103.2	101.4	99.7
77.5°	140.0	125.8	111.5	102.6	93.7	89.6	85.4	83.6	81.9	81.3	80.7
80°	100.8	89.0	77.1	72.4	67.6	66.4	65.3	64.1	62.9	62.3	61.7
82.5°	62.9	56.9	51.0	49.8	48.6	48.0	47.5	46.9	46.3	45.7	45.1
85°	36.8	34.4	32.0	31.4	30.8	30.3	29.7	29.7	29.7	29.7	29.7
87.5°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	14.8	14.2
90°	5.0	6.3	7.8	9.3	10.7	12.2	12.7	13.1	13.6	14.0	14.4
92.5°	18.0	18.6	19.3	20.0	20.7	21.4	21.7	22.0	22.4	22.7	22.8
95°	33.2	34.0	34.9	35.8	36.7	37.6	38.1	38.5	39.0	39.4	39.7
97.5°	51.6	52.2	52.9	53.6	54.3	54.9	55.5	56.1	56.6	57.2	57.4
100°	71.9	72.5	73.1	73.6	74.2	74.8	75.1	75.4	75.8	76.1	76.4
102.5°	93.4	94.0	94.8	95.6	96.4	97.1	97.5	97.8	98.2	98.5	98.6
105°	115.3	116.0	117.0	118.0	119.0	120.0	120.0	120.0	120.0	120.0	120.1
107.5°	141.3	141.6	142.1	142.5	143.0	143.4	143.8	144.1	144.4	144.8	144.9
110°	166.2	166.4	166.7	166.9	167.1	167.3	167.8	168.2	168.7	169.1	169.3



TEST NUMBER: P831868

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	191.2	191.2	191.2	191.2	191.2	191.2	191.8	192.4	192.9	193.5	193.8
115°	217.5	217.6	217.4	217.1	216.9	216.7	216.8	216.9	217.0	217.1	217.1
117.5°	242.6	242.5	242.3	242.0	241.8	241.6	241.6	241.6	241.6	241.6	241.4
120°	268.7	268.8	268.2	267.6	267.1	266.5	266.4	266.3	266.2	266.1	265.9
122.5°	292.7	292.9	292.6	292.4	292.2	291.9	291.6	291.3	290.9	290.6	290.3
125°	317.7	317.8	317.6	317.3	317.1	316.9	316.4	316.0	315.5	315.1	314.6
127.5°	342.5	342.7	342.5	342.2	342.0	341.8	341.1	340.4	339.8	339.1	338.5
130°	366.8	367.1	366.7	366.4	366.0	365.7	365.2	364.8	364.3	363.9	363.3
132.5°	390.2	390.5	390.3	390.1	389.8	389.6	389.0	388.5	387.9	387.3	386.8
135°	413.2	413.5	413.3	413.2	413.1	413.0	412.6	412.1	411.6	411.2	410.9
137.5°	434.6	435.0	435.4	435.7	436.1	436.4	435.8	435.3	434.7	434.1	433.7
140°	457.5	457.8	457.9	458.0	458.2	458.3	458.2	458.0	457.9	457.8	457.4
142.5°	478.3	478.7	479.0	479.2	479.4	479.6	479.5	479.4	479.3	479.2	478.8
145°	498.8	499.1	499.5	499.8	500.1	500.5	500.4	500.3	500.1	500.0	499.8
147.5°	518.6	519.0	519.3	519.6	520.0	520.3	520.3	520.3	520.3	520.3	520.0
150°	537.5	537.7	538.0	538.2	538.4	538.6	538.6	538.6	538.6	538.6	538.3
152.5°	554.2	554.5	554.6	554.7	554.8	554.9	555.1	555.4	555.6	555.8	555.6
155°	570.2	570.2	570.3	570.4	570.6	570.7	571.1	571.6	572.0	572.5	572.3
157.5°	584.5	584.5	584.6	584.7	584.8	584.9	585.4	585.8	586.3	586.7	586.6
160°	597.7	597.6	597.6	597.6	597.6	597.6	598.2	598.8	599.3	599.9	599.9
162.5°	609.5	609.4	609.5	609.6	609.7	609.8	610.4	611.0	611.5	612.1	612.0
165°	619.7	619.5	619.5	619.5	619.5	619.5	620.2	620.9	621.5	622.2	622.2
167.5°	627.9	627.7	627.8	627.9	628.0	628.1	628.8	629.5	630.2	630.9	630.9
170°	635.0	634.8	634.8	634.8	634.8	634.8	635.6	636.3	637.1	637.9	637.9
172.5°	640.6	640.4	640.4	640.4	640.4	640.4	641.0	641.7	642.4	643.1	643.0
175°	644.1	643.9	643.9	643.9	643.9	643.9	644.6	645.3	646.0	646.6	646.6
177.5°	646.2	646.0	646.0	646.0	646.0	646.0	646.6	647.3	648.0	648.7	648.6
180°	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5	647.5



TEST NUMBER: P831868

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2893.6	2893.6	2893.6	2893.6
2.5°	2570.9	2565.0	2562.6	2560.2
5°	2203.7	2185.3	2181.2	2177.0
7.5°	1891.7	1884.0	1858.5	1833.0
10°	1638.4	1614.7	1604.0	1593.3
12.5°	1426.6	1404.7	1401.1	1397.6
15°	1262.3	1246.9	1241.6	1236.2
17.5°	1154.4	1143.7	1137.2	1130.6
20°	1074.3	1066.6	1061.8	1057.1
22.5°	1013.2	1007.2	1003.7	1000.1
25°	954.5	945.6	942.6	939.6
27.5°	898.7	891.0	888.0	885.1
30°	846.5	840.0	835.8	831.7
32.5°	789.5	781.8	779.5	777.1
35°	739.1	734.4	732.0	729.6
37.5°	685.7	679.8	676.2	672.7
40°	640.1	637.1	635.3	633.5
42.5°	593.8	588.5	587.9	587.3
45°	547.5	542.2	541.0	539.8
47.5°	504.2	499.5	498.9	498.3
50°	456.2	449.6	444.9	440.2
52.5°	401.0	395.1	390.9	386.8
55°	350.6	344.1	340.5	336.9
57.5°	312.6	309.6	307.9	306.1
60°	281.8	280.0	278.8	277.6
62.5°	253.3	251.5	251.5	251.5
65°	227.2	225.4	223.6	221.9
67.5°	193.4	189.8	189.2	188.6
70°	152.5	147.1	146.5	145.9
72.5°	119.2	118.6	117.5	116.3
75°	98.5	97.3	97.3	97.3
77.5°	79.5	78.3	78.3	78.3
80°	61.1	60.5	61.1	61.7
82.5°	45.1	45.1	44.5	43.9
85°	29.1	28.5	28.5	28.5
87.5°	14.2	14.2	14.2	14.2
90°	14.6	14.8	15.0	15.3
92.5°	22.5	22.3	22.1	21.9
95°	39.7	39.7	39.7	39.7
97.5°	57.3	57.2	57.1	57.0
100°	76.6	76.9	77.1	77.3
102.5°	98.5	98.4	98.3	98.2
105°	120.4	120.6	120.8	121.1
107.5°	144.8	144.7	144.6	144.4
110°	169.0	168.8	168.6	168.4



TEST NUMBER: P831868

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	193.8	193.8	193.8	193.8
115°	217.0	216.9	216.8	216.7
117.5°	241.1	240.7	240.4	240.1
120°	265.7	265.4	265.2	265.0
122.5°	289.9	289.6	289.2	288.9
125°	314.2	313.7	313.3	312.8
127.5°	338.1	337.6	337.2	336.7
130°	362.5	361.7	360.9	360.1
132.5°	386.2	385.6	385.1	384.5
135°	410.6	410.4	410.2	410.0
137.5°	433.3	433.0	432.7	432.3
140°	456.6	455.8	455.0	454.2
142.5°	478.3	477.7	477.1	476.6
145°	499.3	498.8	498.4	497.9
147.5°	519.3	518.6	517.9	517.3
150°	537.6	536.9	536.3	535.6
152.5°	555.1	554.5	553.9	553.4
155°	571.5	570.7	569.9	569.1
157.5°	585.9	585.3	584.6	583.9
160°	599.5	599.0	598.6	598.1
162.5°	611.2	610.4	609.6	608.8
165°	621.4	620.6	619.8	619.0
167.5°	630.2	629.5	628.8	628.1
170°	637.1	636.3	635.6	634.8
172.5°	642.2	641.4	640.6	639.8
175°	645.8	645.0	644.2	643.4
177.5°	647.8	647.0	646.2	645.4
180°	647.5	647.5	647.5	647.5



TEST NUMBER: P831868

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-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	14.26	15.23	15.05	16.03	17.03	18.92	19.89	19.72	20.70	21.69
	3H	15.49	16.35	16.30	17.17	18.19	20.43	21.30	21.24	22.11	23.14
	4H	15.88	16.69	16.70	17.52	18.55	20.92	21.74	21.75	22.57	23.60
	6H	16.16	16.91	17.00	17.75	18.79	21.24	21.99	22.08	22.83	23.87
	8H	16.25	16.97	17.10	17.82	18.87	21.33	22.04	22.17	22.89	23.94
	12H	16.31	16.99	17.16	17.84	18.91	21.36	22.04	22.22	22.89	23.96
4H	2H	14.99	15.81	15.83	16.64	17.67	18.93	19.75	19.76	20.57	21.61
	3H	16.38	17.05	17.22	17.91	18.96	20.60	21.28	21.44	22.14	23.19
	4H	16.84	17.45	17.69	18.31	19.39	21.21	21.83	22.07	22.69	23.76
	6H	17.21	17.74	18.08	18.62	19.70	21.66	22.19	22.53	23.07	24.15
	8H	17.34	17.83	18.21	18.71	19.80	21.79	22.29	22.66	23.16	24.25
	12H	17.42	17.86	18.31	18.76	19.86	21.86	22.30	22.75	23.20	24.30
8H	4H	17.16	17.65	18.03	18.53	19.62	21.19	21.68	22.06	22.56	23.65
	6H	17.63	18.03	18.53	18.96	20.05	21.69	22.10	22.59	23.02	24.11
	8H	17.82	18.18	18.73	19.10	20.20	21.88	22.24	22.79	23.15	24.26
	12H	17.97	18.28	18.88	19.19	20.35	22.00	22.32	22.91	23.22	24.38
12H	4H	17.18	17.62	18.07	18.52	19.61	21.15	21.59	22.04	22.49	23.58
	6H	17.69	18.05	18.60	18.96	20.07	21.66	22.03	22.58	22.94	24.05
	8H	17.91	18.23	18.82	19.13	20.30	21.86	22.18	22.78	23.09	24.25