

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: P831827

Luminaire Tested: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831827  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S1000D365U840-4F0-1E-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**

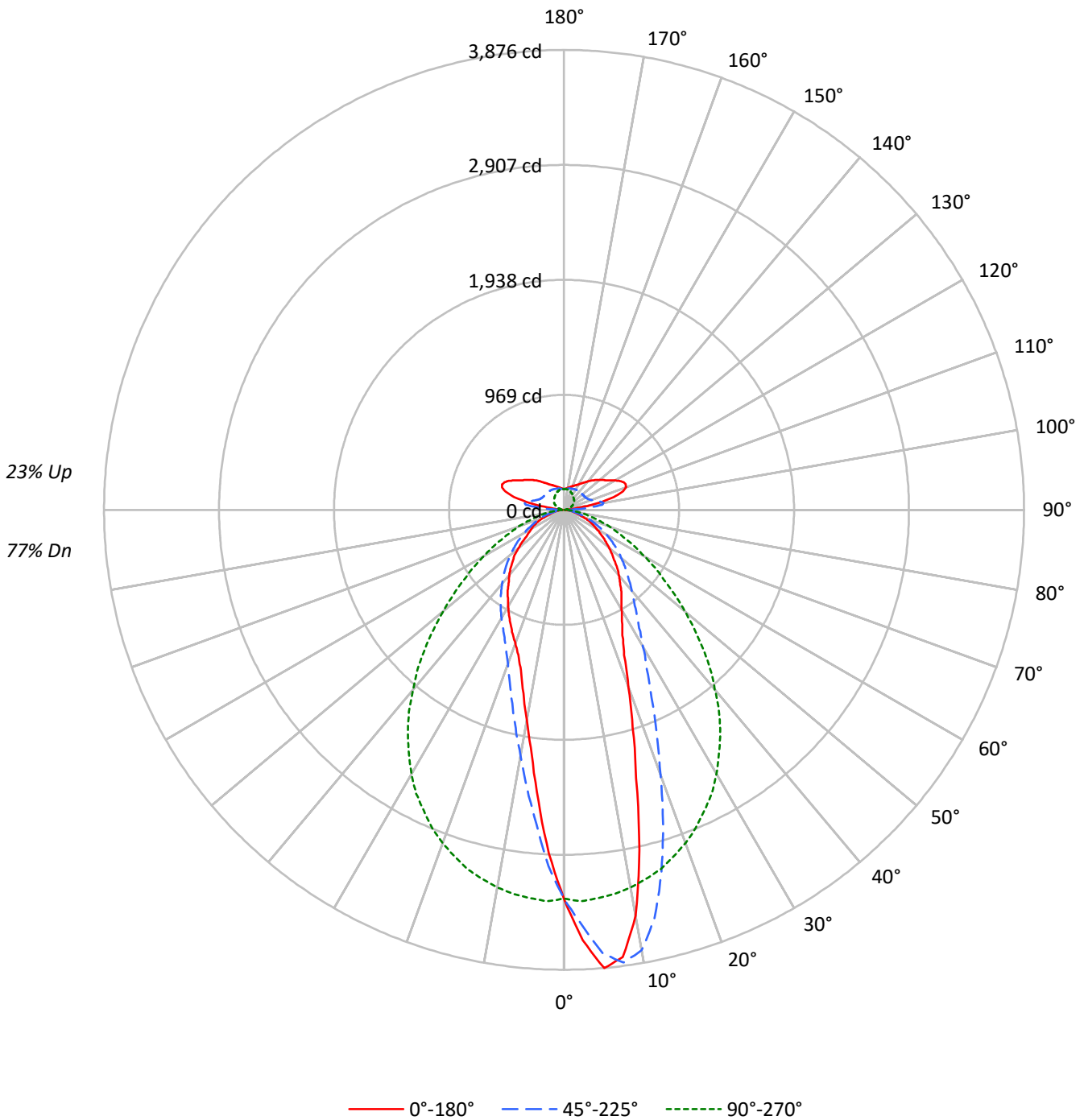
Lumens per Lamp: N/A  
Luminaire Lumens: 5671.9 lumens  
Efficiency: N/A  
Efficacy: 125.8 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

### 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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77				77
1	105	101	97	94	100	96	93	90	88	86	83	80	78	77	73	72	70	67				67
2	97	90	84	79	92	86	81	76	79	75	71	72	69	66	66	64	61	58				58
3	89	80	73	68	85	77	71	66	71	66	62	65	61	58	60	57	54	51				51
4	82	72	65	59	79	69	62	57	64	58	54	59	54	51	54	51	48	45				45
5	76	65	57	52	73	63	56	50	58	52	48	54	49	45	50	46	43	40				40
6	71	59	52	46	68	57	50	45	53	47	43	50	44	41	46	42	39	36				36
7	66	54	47	41	63	53	45	40	49	43	39	46	41	37	43	38	35	33				33
8	62	50	43	37	59	49	42	37	45	39	35	42	37	34	40	35	32	30				30
9	58	46	39	34	56	45	38	34	42	36	32	40	34	31	37	33	30	28				28
10	55	43	36	31	53	42	35	31	39	34	30	37	32	28	35	30	27	26				26

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

	0°	45°	90°	135°	180°
0°	35273	35273	35273	35273	35273
5°	41884	40548	35496	28694	26640
10°	37948	41185	35319	22990	19723
15°	26127	35313	34946	18790	15601
20°	18176	27188	34244	15844	13712
25°	13851	20721	33224	14082	12638
30°	12057	16566	31947	13075	11707
35°	11069	13975	30137	12226	10858
40°	10100	12479	27771	11394	10082
45°	9121	11412	25219	10605	9305
50°	8279	10530	22206	9833	8348
55°	7488	9670	19314	9077	7161
60°	6710	8794	16777	8243	6768
65°	6194	7801	14441	7409	6401
70°	5032	6744	12601	6703	5202
75°	4413	5365	10672	5560	4583
80°	3998	4537	8746	4661	4333
85°	3656	3977	6632	4236	3977

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 26609 cd/sqm



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	298.7	5.3
10°-20°	691.2	12.2
20°-30°	793.0	14.0
30°-40°	781.7	13.8
40°-50°	689.3	12.2
50°-60°	530.3	9.3
60°-70°	348.6	6.1
70°-80°	169.3	3.0
80°-90°	43.7	0.8
90°-100°	95.7	1.7
100°-110°	280.1	4.9
110°-120°	273.5	4.8
120°-130°	217.8	3.8
130°-140°	171.9	3.0
140°-150°	128.2	2.3
150°-160°	89.4	1.6
160°-170°	52.5	0.9
170°-180°	17.1	0.3
0°-30°	1782.9	31.4
0°-40°	2564.6	45.2
0°-60°	3784.2	66.7
0°-90°	4345.8	76.6
90°-120°	649.2	11.4
90°-150°	1167.1	20.6
90°-180°	1326.0	23.4
0°-180°	5671.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3277	3277	3277	3277	3277	
5°	3876	3753	3285	2656	2466	354
15°	2345	3169	3136	1686	1400	662
25°	1166	1745	2797	1186	1064	551
35°	842	1064	2294	930	826	525
45°	599	750	1657	697	611	465
55°	399	515	1029	484	382	358
65°	243	306	567	291	251	238
75°	106	129	257	134	110	114
85°	30	32	54	34	32	31
90°	10	9	1	9	10	7
95°	41	212	12	212	41	67
105°	454	287	41	287	454	453
115°	552	220	73	220	552	538
125°	435	205	102	205	435	394
135°	353	202	119	202	353	274
145°	276	200	136	200	276	175
155°	229	193	154	193	229	107
165°	200	185	169	185	200	57
175°	180	177	176	177	180	17
180°	176	176	176	176	176	



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0
2.5°	3631.7	3620.3	3608.9	3605.5	3602.2	3591.4	3580.7	3556.5	3532.3	3507.5	3482.6
5°	3876.3	3877.6	3879.0	3875.6	3872.2	3858.1	3844.0	3814.5	3784.9	3752.7	3720.4
7.5°	3801.0	3822.5	3844.0	3848.1	3852.1	3862.8	3873.6	3866.9	3860.2	3848.1	3836.0
10°	3471.9	3470.5	3469.2	3493.4	3517.5	3589.4	3661.3	3698.3	3735.2	3768.1	3801.0
12.5°	2934.4	2936.4	2938.4	3017.7	3097.0	3164.8	3232.7	3326.7	3420.8	3522.2	3623.7
15°	2344.6	2377.5	2410.4	2481.0	2551.5	2653.6	2755.7	2882.0	3008.3	3168.9	3329.4
17.5°	1925.4	1939.5	1953.6	2021.4	2089.3	2186.0	2282.8	2425.9	2569.0	2775.9	2982.8
20°	1586.8	1599.6	1612.3	1661.4	1710.4	1803.1	1895.8	2032.2	2168.6	2373.5	2578.4
22.5°	1324.8	1349.6	1374.5	1407.4	1440.3	1507.5	1574.7	1713.8	1852.8	2039.6	2226.3
25°	1166.2	1177.7	1189.1	1217.3	1245.5	1310.0	1374.5	1466.5	1558.6	1744.7	1930.7
27.5°	1058.8	1062.1	1065.5	1086.3	1107.1	1148.8	1190.4	1275.7	1361.1	1514.2	1667.4
30°	970.1	976.1	982.2	998.3	1014.4	1044.6	1074.9	1135.3	1195.8	1332.8	1469.9
32.5°	901.6	904.9	908.3	921.7	935.1	957.3	979.5	1027.2	1074.9	1179.7	1284.5
35°	842.4	843.1	843.8	853.9	863.9	885.4	906.9	946.6	986.2	1063.5	1140.7
37.5°	775.3	780.0	784.7	792.1	799.4	818.3	837.1	869.3	901.6	965.4	1029.2
40°	718.8	722.9	726.9	735.6	744.4	759.1	773.9	803.5	833.0	888.1	943.2
42.5°	662.4	665.1	667.8	676.5	685.2	703.4	721.5	745.0	768.5	814.2	859.9
45°	599.2	606.0	612.7	622.1	631.5	646.9	662.4	686.6	710.8	749.7	788.7
47.5°	546.8	550.2	553.6	561.6	569.7	588.5	607.3	628.8	650.3	686.6	722.9
50°	494.4	495.8	497.1	504.5	511.9	528.7	545.5	570.4	595.2	628.8	662.4
52.5°	444.7	448.1	451.4	458.8	466.2	477.6	489.1	514.6	540.1	573.0	606.0
55°	399.0	401.1	403.1	408.5	413.8	427.3	440.7	462.9	485.0	515.3	545.5
57.5°	356.1	358.7	361.4	365.5	369.5	381.6	393.7	413.2	432.6	462.9	493.1
60°	311.7	315.1	318.4	323.1	327.8	337.2	346.6	364.1	381.6	408.5	435.3
62.5°	279.5	280.1	280.8	284.8	288.9	295.6	302.3	316.4	330.5	357.4	384.3
65°	243.2	245.2	247.2	249.2	251.3	256.6	262.0	274.1	286.2	306.3	326.5
67.5°	205.6	207.6	209.6	213.0	216.3	221.0	225.7	233.8	241.8	260.7	279.5
70°	159.9	159.9	159.9	165.3	170.6	178.7	186.8	192.8	198.9	214.3	229.8
72.5°	130.3	131.0	131.7	132.3	133.0	137.7	142.4	152.5	162.6	172.0	181.4
75°	106.1	106.8	107.5	108.2	108.8	110.2	111.5	114.9	118.2	129.0	139.7
77.5°	84.6	85.3	86.0	86.7	87.3	88.7	90.0	91.4	92.7	96.7	100.8
80°	64.5	65.2	65.8	66.5	67.2	67.9	68.5	69.9	71.2	73.2	75.2
82.5°	47.0	47.0	47.0	47.0	47.0	48.4	49.7	49.7	49.7	51.1	52.4
85°	29.6	29.6	29.6	30.2	30.9	30.9	30.9	31.6	32.2	32.2	32.2
87.5°	13.4	12.8	12.1	12.8	13.4	13.4	13.4	14.1	14.8	14.8	14.8
90°	10.3	10.7	10.3	10.0	10.3	9.6	9.3	8.9	8.6	8.9	7.9
92.5°	18.9	19.6	19.3	20.7	21.4	23.9	27.5	35.3	49.6	66.4	73.5
95°	41.4	42.8	45.3	48.5	55.3	68.2	87.1	128.5	171.7	211.6	188.4
97.5°	84.9	88.9	97.4	111.0	134.9	175.6	222.7	295.1	336.5	325.5	243.0
100°	223.8	223.4	237.3	263.4	299.4	350.1	391.8	420.7	408.3	338.0	228.4
102.5°	354.4	364.7	375.8	395.1	421.1	448.6	468.6	462.5	411.8	314.8	207.0
105°	453.9	455.7	467.1	480.7	497.1	506.4	499.6	463.9	389.3	286.9	190.2
107.5°	518.9	522.8	527.4	533.9	536.0	526.4	498.5	442.5	357.2	262.3	178.1
110°	556.0	556.7	557.4	554.6	544.6	519.6	474.6	409.0	327.2	242.0	171.7

TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	563.5	563.1	559.6	549.2	528.9	495.0	443.2	375.8	301.2	228.4	168.1
115°	552.1	550.3	543.2	527.4	500.7	461.8	409.3	347.2	281.2	219.5	167.7
117.5°	527.1	524.6	513.9	496.4	468.6	428.2	380.1	325.1	268.0	213.4	168.1
120°	494.3	492.1	483.6	463.6	435.4	399.3	356.5	308.3	258.0	209.5	169.5
122.5°	463.6	460.7	451.1	433.6	409.3	376.5	337.6	295.1	249.8	207.0	172.0
125°	435.4	432.9	424.0	408.3	385.4	356.9	322.6	283.7	243.0	204.8	174.5
127.5°	411.1	409.0	400.8	387.2	366.5	340.1	308.7	273.4	236.6	203.8	177.4
130°	391.1	388.3	380.8	367.9	349.0	324.7	295.8	263.7	231.6	202.7	180.2
132.5°	371.5	369.7	363.3	350.4	333.0	310.1	283.7	254.8	227.0	202.3	182.4
135°	352.9	350.4	344.0	333.3	315.8	295.5	272.3	247.0	223.0	202.0	184.5
137.5°	333.3	331.2	325.8	314.8	299.8	281.6	260.9	239.5	219.5	201.3	185.9
140°	312.6	313.0	307.3	297.3	283.7	268.4	251.2	233.0	216.3	200.9	187.4
142.5°	293.3	293.7	288.7	280.1	269.1	256.2	242.0	227.0	213.4	200.2	188.4
145°	275.9	275.1	272.3	264.8	255.9	245.5	234.1	222.3	210.9	199.5	188.8
147.5°	260.9	260.5	257.7	252.3	245.2	237.7	228.0	218.4	208.4	198.4	188.8
150°	248.0	248.0	245.9	242.0	236.6	229.8	222.3	214.1	205.9	197.0	188.8
152.5°	237.3	237.3	236.2	232.7	228.8	223.4	217.0	210.2	203.1	195.2	187.7
155°	228.8	228.4	227.7	224.8	221.6	217.3	212.0	206.3	200.2	193.1	187.0
157.5°	220.5	220.5	219.8	217.7	214.8	211.3	207.0	202.0	197.0	191.3	185.9
160°	212.7	213.0	213.0	210.9	208.4	205.9	202.3	198.4	193.8	189.1	185.2
162.5°	205.6	205.9	205.9	204.1	202.7	200.6	197.3	194.1	190.6	187.0	183.8
165°	199.5	199.5	199.8	198.4	197.0	195.2	192.7	190.6	187.7	184.9	182.4
167.5°	193.4	193.4	193.8	192.7	192.0	190.6	189.1	187.4	184.9	182.7	180.9
170°	188.1	188.1	188.4	187.7	187.4	186.6	185.2	184.1	182.4	180.6	179.5
172.5°	183.1	183.4	184.1	183.4	183.4	183.1	182.0	181.3	179.9	178.8	178.4
175°	179.5	179.9	180.2	179.9	179.9	179.9	179.1	178.8	178.1	177.4	177.4
177.5°	177.0	177.0	177.7	177.4	177.7	177.7	177.4	177.0	176.6	176.3	176.6
180°	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0
2.5°	3479.2	3475.9	3443.6	3411.4	3379.8	3348.2	3324.7	3301.2	3261.6	3221.9	3197.1
5°	3694.9	3669.4	3618.3	3567.3	3490.7	3414.1	3349.6	3285.1	3203.1	3121.2	3052.7
7.5°	3815.1	3794.3	3732.5	3670.7	3569.3	3467.8	3367.1	3266.3	3145.4	3024.4	2921.0
10°	3818.5	3836.0	3784.9	3733.9	3619.7	3505.4	3368.4	3231.4	3068.8	2906.2	2772.5
12.5°	3698.9	3774.2	3763.4	3752.7	3636.4	3520.2	3353.6	3187.0	2987.5	2788.0	2620.7
15°	3475.2	3621.0	3664.0	3707.0	3610.9	3514.9	3325.4	3136.0	2901.5	2667.0	2474.9
17.5°	3187.0	3391.2	3504.8	3618.3	3548.4	3478.6	3271.0	3063.4	2799.4	2535.4	2326.4
20°	2845.7	3113.1	3291.1	3469.2	3443.6	3418.1	3203.8	2989.5	2704.7	2419.8	2193.4
22.5°	2508.5	2790.7	3036.5	3282.4	3308.6	3334.8	3118.5	2902.2	2590.5	2278.7	2048.3
25°	2217.6	2504.5	2797.4	3090.3	3149.4	3208.5	3002.9	2797.4	2474.2	2151.1	1922.0
27.5°	1940.2	2212.9	2535.4	2857.8	2965.3	3072.8	2884.7	2696.6	2360.0	2023.5	1795.0
30°	1713.8	1957.6	2286.8	2616.0	2765.8	2915.6	2743.0	2570.3	2236.4	1902.5	1678.8
32.5°	1502.8	1721.1	2051.7	2382.2	2556.2	2730.2	2581.1	2431.9	2110.8	1789.7	1568.7
35°	1336.2	1531.7	1840.1	2148.4	2343.2	2538.1	2415.8	2293.5	1979.8	1666.1	1457.1
37.5°	1193.1	1357.0	1646.6	1936.1	2143.0	2350.0	2247.8	2145.7	1850.8	1555.9	1358.4
40°	1074.9	1206.6	1475.9	1745.3	1948.2	2151.1	2063.8	1976.4	1712.4	1448.4	1263.7
42.5°	973.4	1087.0	1328.8	1570.7	1756.8	1942.8	1885.1	1827.3	1588.1	1349.0	1177.7
45°	884.1	979.5	1192.4	1405.4	1576.7	1748.0	1702.3	1656.7	1450.4	1244.2	1087.0
47.5°	804.8	886.8	1076.9	1267.0	1420.9	1574.7	1532.4	1490.0	1319.4	1148.8	1005.7
50°	732.3	802.1	960.7	1119.2	1257.6	1396.0	1361.1	1326.1	1185.1	1044.0	920.4
52.5°	663.7	721.5	863.9	1006.4	1117.9	1229.4	1202.5	1175.6	1066.8	958.0	845.8
55°	598.6	651.6	771.9	892.1	987.5	1082.9	1056.1	1029.2	944.5	859.9	761.1
57.5°	539.5	585.8	683.2	780.6	856.5	932.5	919.7	906.9	836.4	765.9	684.6
60°	477.0	518.6	602.6	686.6	747.7	808.8	794.1	779.3	728.9	678.5	608.6
62.5°	421.2	458.2	525.3	592.5	642.2	692.0	681.2	670.5	632.2	593.9	536.1
65°	362.8	399.0	453.5	507.9	546.8	585.8	576.4	567.0	538.1	509.2	462.9
67.5°	309.7	339.9	387.0	434.0	460.2	486.4	481.0	475.6	453.5	431.3	395.0
70°	256.0	282.2	321.1	360.1	378.2	396.4	398.4	400.4	380.2	360.1	333.2
72.5°	202.2	223.0	259.3	295.6	309.7	323.8	323.1	322.5	310.4	298.3	274.1
75°	155.2	170.6	198.9	227.1	239.2	251.3	253.9	256.6	245.2	233.8	220.4
77.5°	111.5	122.3	143.8	165.3	178.7	192.1	193.5	194.8	189.4	184.1	171.3
80°	78.6	82.0	95.4	108.8	122.9	137.0	139.1	141.1	135.7	130.3	122.3
82.5°	54.4	56.4	61.1	65.8	77.3	88.7	91.4	94.1	91.4	88.7	79.9
85°	32.9	33.6	35.6	37.6	43.0	48.4	51.1	53.7	52.4	51.1	46.4
87.5°	14.8	14.8	15.5	16.1	17.5	18.8	22.2	25.5	23.5	21.5	19.5
90°	6.8	5.7	4.6	3.9	3.2	2.1	1.4	0.7	1.4	2.1	3.2
92.5°	55.0	36.0	24.6	18.2	14.6	11.4	7.9	5.4	7.9	11.4	14.6
95°	129.9	76.7	46.4	32.5	23.2	17.1	13.2	12.1	13.2	17.1	23.2
97.5°	144.5	82.8	52.8	37.5	28.2	22.8	19.6	19.3	19.6	22.8	28.2
100°	134.5	81.7	56.7	42.8	34.3	29.3	26.8	26.4	26.8	29.3	34.3
102.5°	126.0	83.2	61.4	48.9	41.4	36.8	34.6	33.9	34.6	36.8	41.4
105°	122.8	86.0	66.7	55.7	48.9	44.6	42.5	41.4	42.5	44.6	48.9
107.5°	122.0	90.6	73.5	63.2	56.7	52.5	50.3	49.2	50.3	52.5	56.7
110°	123.8	96.7	80.7	70.7	64.6	60.7	58.9	57.8	58.9	60.7	64.6





TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	127.4	102.8	88.1	78.5	72.4	68.5	66.7	65.7	66.7	68.5	72.4
115°	131.3	109.6	96.0	86.4	80.3	76.7	74.6	73.2	74.6	76.7	80.3
117.5°	136.3	116.7	103.1	94.2	87.4	84.2	82.4	80.7	82.4	84.2	87.4
120°	142.0	123.5	110.6	101.7	94.9	91.4	89.6	88.5	89.6	91.4	94.9
122.5°	147.4	130.6	118.1	108.5	102.1	98.1	96.4	95.3	96.4	98.1	102.1
125°	153.1	137.4	124.9	115.3	108.5	104.6	102.4	101.7	102.4	104.6	108.5
127.5°	157.7	143.5	131.3	121.7	114.2	110.3	107.8	106.7	107.8	110.3	114.2
130°	162.4	148.8	137.0	127.4	119.9	115.6	112.4	111.3	112.4	115.6	119.9
132.5°	166.7	153.5	142.0	132.8	125.3	119.9	116.3	114.9	116.3	119.9	125.3
135°	170.2	158.1	147.0	137.4	129.9	124.5	120.6	119.2	120.6	124.5	129.9
137.5°	173.1	161.3	150.6	141.7	134.2	128.5	124.5	123.1	124.5	128.5	134.2
140°	175.2	164.5	154.2	145.2	138.1	132.4	128.8	127.0	128.8	132.4	138.1
142.5°	177.4	167.0	157.0	148.8	141.7	136.7	132.8	131.3	132.8	136.7	141.7
145°	178.8	169.2	159.9	151.7	145.6	140.2	137.0	136.0	137.0	140.2	145.6
147.5°	179.9	170.9	162.4	155.2	149.2	144.5	141.3	140.6	141.3	144.5	149.2
150°	180.2	172.7	164.5	158.1	153.1	148.5	145.6	145.2	145.6	148.5	153.1
152.5°	180.9	173.8	167.0	160.9	156.7	152.7	149.9	149.9	149.9	152.7	156.7
155°	180.9	175.2	169.2	164.2	160.2	156.7	154.5	154.5	154.5	156.7	160.2
157.5°	181.3	175.9	170.9	167.0	163.4	160.2	158.4	158.1	158.4	160.2	163.4
160°	181.3	177.0	172.7	169.2	166.7	163.8	162.4	162.4	162.4	163.8	166.7
162.5°	180.9	177.4	173.8	170.9	168.8	166.7	165.6	165.6	165.6	166.7	168.8
165°	180.2	177.7	174.9	172.4	170.9	169.2	168.4	168.8	168.4	169.2	170.9
167.5°	179.9	177.7	175.6	173.8	172.7	171.3	170.9	171.3	170.9	171.3	172.7
170°	178.8	177.4	175.6	174.9	174.2	173.1	172.7	173.4	172.7	173.1	174.2
172.5°	178.4	177.4	175.9	175.6	175.2	174.5	174.5	174.9	174.5	174.5	175.2
175°	177.7	177.0	176.3	175.9	175.9	175.2	175.6	175.9	175.6	175.2	175.9
177.5°	177.4	176.6	176.3	176.3	176.3	175.9	176.3	176.6	176.3	175.9	176.3
180°	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0	3277.0
2.5°	3172.2	3133.9	3095.6	3068.1	3040.6	3006.3	2972.0	2970.7	2969.4	2943.8	2918.3
5°	2984.1	2917.6	2851.1	2785.9	2720.8	2655.6	2590.5	2575.7	2560.9	2538.7	2516.6
7.5°	2817.5	2711.4	2605.2	2521.9	2438.6	2373.5	2308.3	2264.0	2219.6	2185.4	2151.1
10°	2638.8	2507.2	2375.5	2274.7	2173.9	2103.4	2032.9	1981.8	1930.7	1906.6	1882.4
12.5°	2453.4	2310.3	2167.2	2068.5	1969.7	1885.1	1800.4	1754.1	1707.7	1674.1	1640.5
15°	2282.8	2128.9	1975.1	1870.3	1765.5	1686.2	1606.9	1560.6	1514.2	1480.6	1447.1
17.5°	2117.5	1962.3	1807.1	1701.0	1594.9	1523.0	1451.1	1406.1	1361.1	1340.2	1319.4
20°	1967.0	1810.5	1654.0	1553.9	1453.8	1383.2	1312.7	1288.5	1264.3	1244.8	1225.4
22.5°	1817.9	1667.4	1516.9	1420.9	1324.8	1273.7	1222.7	1203.2	1183.7	1168.9	1154.2
25°	1692.9	1543.1	1393.3	1309.3	1225.4	1185.7	1146.1	1133.3	1120.6	1105.8	1091.0
27.5°	1566.6	1424.2	1281.8	1214.6	1147.4	1115.2	1082.9	1066.8	1050.7	1038.6	1026.5
30°	1455.1	1323.4	1191.8	1136.0	1080.3	1052.0	1023.8	1006.4	988.9	977.5	966.0
32.5°	1347.6	1230.7	1113.8	1066.1	1018.4	990.9	963.4	946.6	929.8	916.3	902.9
35°	1248.2	1146.8	1045.3	1001.7	958.0	930.4	902.9	886.1	869.3	855.9	842.4
37.5°	1160.9	1068.8	976.8	935.8	894.8	870.7	846.5	829.0	811.5	797.4	783.3
40°	1078.9	997.6	916.3	876.7	837.1	810.9	784.7	769.2	753.8	741.0	728.2
42.5°	1006.4	931.8	857.2	818.3	779.3	754.4	729.6	711.4	693.3	685.9	678.5
45°	929.8	863.9	798.1	760.5	722.9	696.7	670.5	655.0	639.6	632.8	626.1
47.5°	862.6	801.5	740.3	703.4	666.4	642.9	619.4	607.3	595.2	585.8	576.4
50°	796.8	737.6	678.5	642.9	607.3	587.2	567.0	552.2	537.4	530.7	524.0
52.5°	733.6	679.9	626.1	589.8	553.6	534.1	514.6	501.8	489.1	475.0	460.9
55°	662.4	615.4	568.3	536.1	503.8	483.7	463.5	448.8	434.0	419.2	404.4
57.5°	603.3	556.9	510.6	481.7	452.8	433.3	413.8	397.7	381.6	369.5	357.4
60°	538.8	498.5	458.2	430.0	401.7	382.9	364.1	348.7	333.2	327.2	321.1
62.5°	478.3	440.7	403.1	378.2	353.4	335.2	317.1	307.0	296.9	292.9	288.9
65°	416.5	384.3	352.0	329.2	306.3	290.9	275.4	270.7	266.0	262.7	259.3
67.5°	358.7	331.2	303.7	283.5	263.3	252.6	241.8	236.5	231.1	227.1	223.0
70°	306.3	282.2	258.0	240.5	223.0	213.0	202.9	198.2	193.5	186.1	178.7
72.5°	249.9	231.1	212.3	198.9	185.4	176.7	167.9	158.5	149.1	142.4	135.7
75°	206.9	188.1	169.3	156.5	143.8	133.7	123.6	120.3	116.9	114.9	112.9
77.5°	158.5	142.4	126.3	116.2	106.1	101.4	96.7	94.7	92.7	92.0	91.4
80°	114.2	100.8	87.3	82.0	76.6	75.2	73.9	72.6	71.2	70.5	69.9
82.5°	71.2	64.5	57.8	56.4	55.1	54.4	53.7	53.1	52.4	51.7	51.1
85°	41.7	39.0	36.3	35.6	34.9	34.3	33.6	33.6	33.6	33.6	33.6
87.5°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	16.8	16.1
90°	3.9	4.6	5.7	6.8	7.9	8.9	8.6	8.9	9.3	9.6	10.3
92.5°	18.2	24.6	36.0	55.0	73.5	66.4	49.6	35.3	27.5	23.9	21.4
95°	32.5	46.4	76.7	129.9	188.4	211.6	171.7	128.5	87.1	68.2	55.3
97.5°	37.5	52.8	82.8	144.5	243.0	325.5	336.5	295.1	222.7	175.6	134.9
100°	42.8	56.7	81.7	134.5	228.4	338.0	408.3	420.7	391.8	350.1	299.4
102.5°	48.9	61.4	83.2	126.0	207.0	314.8	411.8	462.5	468.6	448.6	421.1
105°	55.7	66.7	86.0	122.8	190.2	286.9	389.3	463.9	499.6	506.4	497.1
107.5°	63.2	73.5	90.6	122.0	178.1	262.3	357.2	442.5	498.5	526.4	536.0
110°	70.7	80.7	96.7	123.8	171.7	242.0	327.2	409.0	474.6	519.6	544.6



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	78.5	88.1	102.8	127.4	168.1	228.4	301.2	375.8	443.2	495.0	528.9
115°	86.4	96.0	109.6	131.3	167.7	219.5	281.2	347.2	409.3	461.8	500.7
117.5°	94.2	103.1	116.7	136.3	168.1	213.4	268.0	325.1	380.1	428.2	468.6
120°	101.7	110.6	123.5	142.0	169.5	209.5	258.0	308.3	356.5	399.3	435.4
122.5°	108.5	118.1	130.6	147.4	172.0	207.0	249.8	295.1	337.6	376.5	409.3
125°	115.3	124.9	137.4	153.1	174.5	204.8	243.0	283.7	322.6	356.9	385.4
127.5°	121.7	131.3	143.5	157.7	177.4	203.8	236.6	273.4	308.7	340.1	366.5
130°	127.4	137.0	148.8	162.4	180.2	202.7	231.6	263.7	295.8	324.7	349.0
132.5°	132.8	142.0	153.5	166.7	182.4	202.3	227.0	254.8	283.7	310.1	333.0
135°	137.4	147.0	158.1	170.2	184.5	202.0	223.0	247.0	272.3	295.5	315.8
137.5°	141.7	150.6	161.3	173.1	185.9	201.3	219.5	239.5	260.9	281.6	299.8
140°	145.2	154.2	164.5	175.2	187.4	200.9	216.3	233.0	251.2	268.4	283.7
142.5°	148.8	157.0	167.0	177.4	188.4	200.2	213.4	227.0	242.0	256.2	269.1
145°	151.7	159.9	169.2	178.8	188.8	199.5	210.9	222.3	234.1	245.5	255.9
147.5°	155.2	162.4	170.9	179.9	188.8	198.4	208.4	218.4	228.0	237.7	245.2
150°	158.1	164.5	172.7	180.2	188.8	197.0	205.9	214.1	222.3	229.8	236.6
152.5°	160.9	167.0	173.8	180.9	187.7	195.2	203.1	210.2	217.0	223.4	228.8
155°	164.2	169.2	175.2	180.9	187.0	193.1	200.2	206.3	212.0	217.3	221.6
157.5°	167.0	170.9	175.9	181.3	185.9	191.3	197.0	202.0	207.0	211.3	214.8
160°	169.2	172.7	177.0	181.3	185.2	189.1	193.8	198.4	202.3	205.9	208.4
162.5°	170.9	173.8	177.4	180.9	183.8	187.0	190.6	194.1	197.3	200.6	202.7
165°	172.4	174.9	177.7	180.2	182.4	184.9	187.7	190.6	192.7	195.2	197.0
167.5°	173.8	175.6	177.7	179.9	180.9	182.7	184.9	187.4	189.1	190.6	192.0
170°	174.9	175.6	177.4	178.8	179.5	180.6	182.4	184.1	185.2	186.6	187.4
172.5°	175.6	175.9	177.4	178.4	178.4	178.8	179.9	181.3	182.0	183.1	183.4
175°	175.9	176.3	177.0	177.7	177.4	177.4	178.1	178.8	179.1	179.9	179.9
177.5°	176.3	176.3	176.6	177.4	176.6	176.3	176.6	177.0	177.4	177.7	177.7
180°	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3	176.3



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3277.0	3277.0	3277.0	3277.0
2.5°	2911.6	2904.9	2902.2	2899.5
5°	2495.7	2474.9	2470.2	2465.5
7.5°	2142.4	2133.6	2104.7	2075.9
10°	1855.5	1828.6	1816.5	1804.5
12.5°	1615.7	1590.8	1586.8	1582.8
15°	1429.6	1412.1	1406.1	1400.0
17.5°	1307.3	1295.2	1287.8	1280.4
20°	1216.6	1207.9	1202.5	1197.1
22.5°	1147.4	1140.7	1136.7	1132.7
25°	1080.9	1070.8	1067.5	1064.1
27.5°	1017.8	1009.0	1005.7	1002.3
30°	958.7	951.3	946.6	941.9
32.5°	894.2	885.4	882.7	880.1
35°	837.1	831.7	829.0	826.3
37.5°	776.6	769.9	765.9	761.8
40°	724.9	721.5	719.5	717.5
42.5°	672.5	666.4	665.8	665.1
45°	620.1	614.0	612.7	611.3
47.5°	571.0	565.7	565.0	564.3
50°	516.6	509.2	503.8	498.5
52.5°	454.1	447.4	442.7	438.0
55°	397.0	389.6	385.6	381.6
57.5°	354.0	350.7	348.7	346.6
60°	319.1	317.1	315.7	314.4
62.5°	286.9	284.8	284.8	284.8
65°	257.3	255.3	253.3	251.3
67.5°	219.0	215.0	214.3	213.6
70°	172.7	166.6	165.9	165.3
72.5°	135.0	134.4	133.0	131.7
75°	111.5	110.2	110.2	110.2
77.5°	90.0	88.7	88.7	88.7
80°	69.2	68.5	69.2	69.9
82.5°	51.1	51.1	50.4	49.7
85°	32.9	32.2	32.2	32.2
87.5°	16.1	16.1	16.1	16.1
90°	10.0	10.3	10.7	10.3
92.5°	20.7	19.3	19.6	18.9
95°	48.5	45.3	42.8	41.4
97.5°	111.0	97.4	88.9	84.9
100°	263.4	237.3	223.4	223.8
102.5°	395.1	375.8	364.7	354.4
105°	480.7	467.1	455.7	453.9
107.5°	533.9	527.4	522.8	518.9
110°	554.6	557.4	556.7	556.0



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	549.2	559.6	563.1	563.5
115°	527.4	543.2	550.3	552.1
117.5°	496.4	513.9	524.6	527.1
120°	463.6	483.6	492.1	494.3
122.5°	433.6	451.1	460.7	463.6
125°	408.3	424.0	432.9	435.4
127.5°	387.2	400.8	409.0	411.1
130°	367.9	380.8	388.3	391.1
132.5°	350.4	363.3	369.7	371.5
135°	333.3	344.0	350.4	352.9
137.5°	314.8	325.8	331.2	333.3
140°	297.3	307.3	313.0	312.6
142.5°	280.1	288.7	293.7	293.3
145°	264.8	272.3	275.1	275.9
147.5°	252.3	257.7	260.5	260.9
150°	242.0	245.9	248.0	248.0
152.5°	232.7	236.2	237.3	237.3
155°	224.8	227.7	228.4	228.8
157.5°	217.7	219.8	220.5	220.5
160°	210.9	213.0	213.0	212.7
162.5°	204.1	205.9	205.9	205.6
165°	198.4	199.8	199.5	199.5
167.5°	192.7	193.8	193.4	193.4
170°	187.7	188.4	188.1	188.1
172.5°	183.4	184.1	183.4	183.1
175°	179.9	180.2	179.9	179.5
177.5°	177.4	177.7	177.0	177.0
180°	176.3	176.3	176.3	176.3



TEST NUMBER: P831827

CATALOG NUMBER: S123RDIP-S1000D365U840-4F0-1E-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	15.35	16.41	16.05	17.13	17.96	20.01	21.08	20.71	21.79	22.63
	3H	16.59	17.54	17.30	18.26	19.13	21.53	22.48	22.24	23.20	24.07
	4H	16.98	17.88	17.71	18.61	19.49	22.03	22.92	22.76	23.66	24.54
	6H	17.27	18.10	18.02	18.84	19.73	22.35	23.18	23.10	23.92	24.81
	8H	17.37	18.15	18.12	18.91	19.81	22.44	23.22	23.19	23.98	24.88
	12H	17.42	18.17	18.19	18.93	19.85	22.48	23.22	23.24	23.98	24.90
4H	2H	16.10	16.99	16.84	17.73	18.61	20.03	20.93	20.77	21.66	22.55
	3H	17.49	18.23	18.24	19.00	19.90	21.71	22.46	22.46	23.22	24.12
	4H	17.95	18.62	18.72	19.39	20.32	22.33	23.00	23.09	23.77	24.70
	6H	18.33	18.91	19.11	19.71	20.64	22.78	23.36	23.56	24.15	25.09
	8H	18.46	19.00	19.25	19.79	20.74	22.91	23.45	23.70	24.24	25.19
	12H	18.55	19.03	19.35	19.84	20.80	22.98	23.47	23.79	24.28	25.24
8H	4H	18.28	18.82	19.07	19.61	20.56	22.31	22.85	23.10	23.64	24.59
	6H	18.75	19.20	19.57	20.03	20.98	22.81	23.26	23.63	24.09	25.04
	8H	18.95	19.34	19.77	20.17	21.14	23.00	23.40	23.83	24.23	25.20
	12H	19.10	19.44	19.92	20.27	21.29	23.13	23.48	23.95	24.30	25.32
12H	4H	18.30	18.79	19.11	19.60	20.55	22.27	22.76	23.08	23.57	24.52
	6H	18.81	19.21	19.64	20.04	21.01	22.79	23.19	23.62	24.02	24.98
	8H	19.04	19.39	19.87	20.21	21.24	22.99	23.34	23.82	24.16	25.19