

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: P831896

Luminaire Tested: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831896  
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-S1000D805U940-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

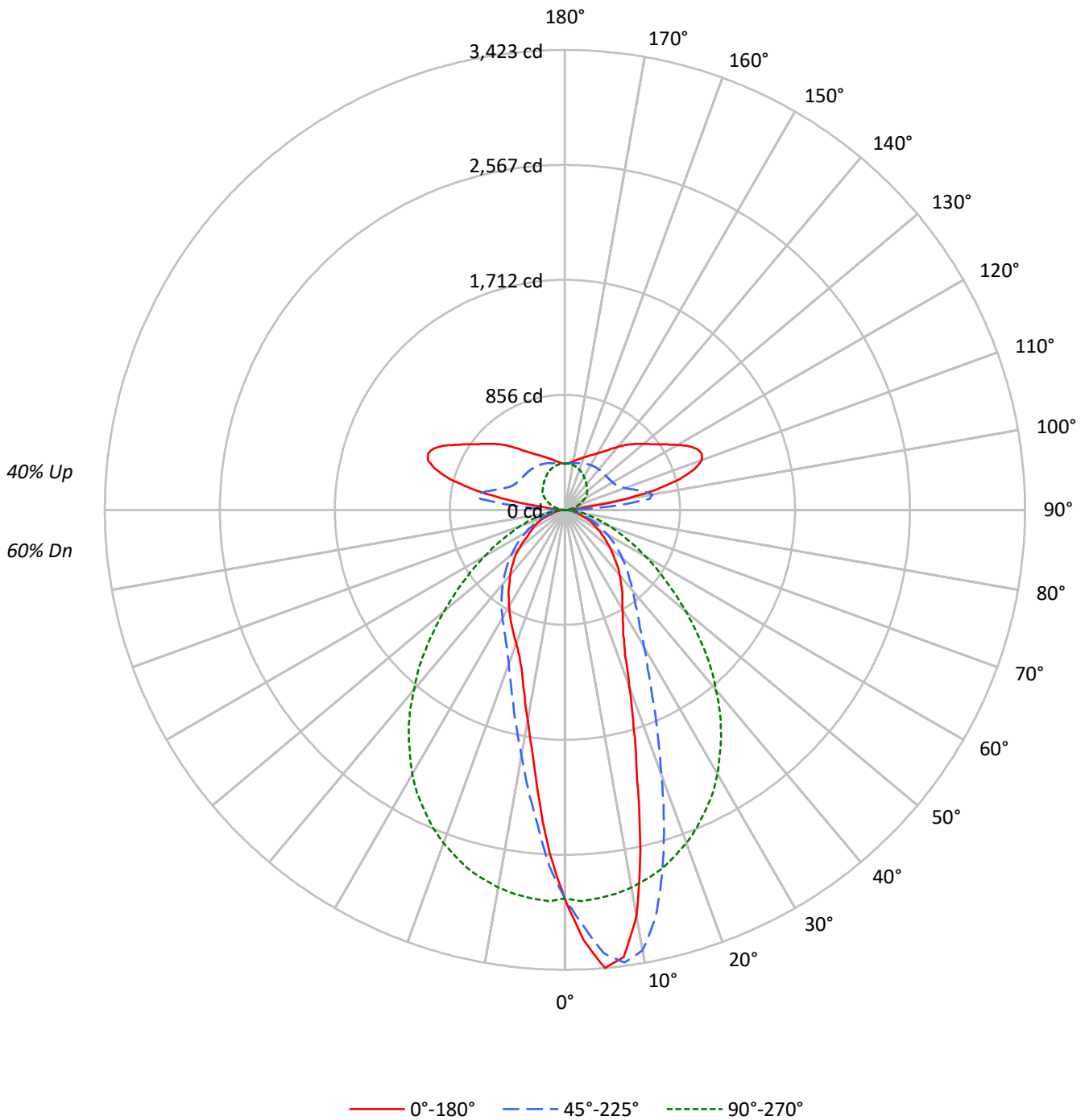
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6429.0 lumens  
Efficiency: N/A  
Efficacy: 115.4 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: General Diffuse  
  
Input Watts (W): 55.7  
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: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60				
1	101	97	93	90	94	91	88	85	79	77	75	69	67	66	59	58	57	52				
2	93	86	80	75	87	81	76	71	71	67	64	62	59	56	53	51	49	45				
3	85	76	70	64	80	72	66	61	63	59	55	55	52	49	48	46	43	40				
4	79	68	61	55	73	65	58	53	57	52	48	50	46	43	44	41	38	35				
5	73	62	54	48	68	58	51	46	52	46	42	46	41	38	40	37	34	31				
6	68	56	48	43	63	53	46	41	47	42	38	42	38	34	37	34	31	28				
7	63	51	43	38	59	48	42	37	43	38	34	39	34	31	34	31	28	26				
8	59	47	39	34	55	44	38	33	40	34	31	36	31	28	32	28	26	23				
9	55	43	36	31	52	41	35	30	37	32	28	33	29	26	30	26	24	22				
10	52	40	33	28	49	38	32	27	34	29	26	31	27	24	28	24	22	20				

**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



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	263.7	4.1
10°-20°	610.3	9.5
20°-30°	700.2	10.9
30°-40°	690.2	10.7
40°-50°	608.7	9.5
50°-60°	468.3	7.3
60°-70°	307.9	4.8
70°-80°	149.5	2.3
80°-90°	39.6	0.6
90°-100°	186.9	2.9
100°-110°	547.1	8.5
110°-120°	534.3	8.3
120°-130°	425.5	6.6
130°-140°	335.7	5.2
140°-150°	250.4	3.9
150°-160°	174.6	2.7
160°-170°	102.6	1.6
170°-180°	33.4	0.5
0°-30°	1574.3	24.5
0°-40°	2264.5	35.2
0°-60°	3341.4	52.0
0°-90°	3838.4	59.7
90°-120°	1268.3	19.7
90°-150°	2280.0	35.5
90°-180°	2591.0	40.3
0°-180°	6429.0	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°	20	17	1	17	20	12
95°	81	413	24	413	81	131
105°	887	560	81	560	887	885
115°	1078	429	143	429	1078	1052
125°	850	400	199	400	850	770
135°	690	395	233	395	690	535
145°	539	390	266	390	539	342
155°	447	377	302	377	447	208
165°	390	361	330	361	390	111
175°	351	346	344	346	351	34
180°	344	344	344	344	344	



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**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°	20.2	20.9	20.2	19.5	20.2	18.8	18.1	17.4	16.7	17.4	15.3
92.5°	36.9	38.3	37.6	40.4	41.8	46.7	53.7	69.0	96.9	129.7	143.6
95°	80.9	83.7	88.5	94.8	108.1	133.2	170.1	251.0	335.3	413.4	368.1
97.5°	165.9	173.6	190.3	216.8	263.5	343.0	435.0	576.5	657.4	635.8	474.8
100°	437.1	436.4	463.6	514.5	584.9	683.9	765.5	821.9	797.5	660.2	446.2
102.5°	692.3	712.5	734.1	771.8	822.6	876.3	915.4	903.5	804.5	614.9	404.4
105°	886.8	890.3	912.6	939.1	971.1	989.3	976.0	906.3	760.6	560.5	371.6
107.5°	1013.7	1021.3	1030.4	1042.9	1047.1	1028.3	973.9	864.5	697.9	512.4	347.9
110°	1086.2	1087.6	1089.0	1083.4	1063.9	1015.1	927.2	798.9	639.3	472.7	335.3



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1100.8	1100.1	1093.1	1072.9	1033.2	967.0	865.9	734.1	588.4	446.2	328.4
115°	1078.5	1075.0	1061.1	1030.4	978.1	902.1	799.6	678.3	549.4	428.8	327.7
117.5°	1029.7	1024.8	1003.9	969.7	915.4	836.6	742.5	635.1	523.6	416.9	328.4
120°	965.6	961.4	944.6	905.6	850.5	780.1	696.5	602.3	504.0	409.2	331.1
122.5°	905.6	900.0	881.2	847.0	799.6	735.5	659.5	576.5	488.0	404.4	336.0
125°	850.5	845.7	828.2	797.5	752.9	697.2	630.2	554.2	474.8	400.2	340.9
127.5°	803.1	798.9	782.9	756.4	716.0	664.4	603.0	534.0	462.2	398.1	346.5
130°	764.1	758.5	743.9	718.8	681.8	634.4	577.9	515.2	452.5	396.0	352.1
132.5°	725.7	722.3	709.7	684.6	650.4	605.8	554.2	497.8	443.4	395.3	356.2
135°	689.5	684.6	672.1	651.1	617.0	577.2	531.9	482.4	435.7	394.6	360.4
137.5°	651.1	647.0	636.5	614.9	585.6	550.1	509.6	467.8	428.8	393.2	363.2
140°	610.7	611.4	600.3	580.7	554.2	524.3	490.8	455.2	422.5	392.5	366.0
142.5°	573.1	573.8	564.0	547.3	525.7	500.6	472.7	443.4	416.9	391.1	368.1
145°	538.9	537.5	531.9	517.3	499.9	479.6	457.3	434.3	412.0	389.7	368.8
147.5°	509.6	508.9	503.3	492.9	478.9	464.3	445.5	426.7	407.1	387.6	368.8
150°	484.5	484.5	480.3	472.7	462.2	449.0	434.3	418.3	402.3	384.8	368.8
152.5°	463.6	463.6	461.5	454.5	446.9	436.4	423.9	410.6	396.7	381.3	366.7
155°	446.9	446.2	444.8	439.2	432.9	424.6	414.1	403.0	391.1	377.2	365.3
157.5°	430.8	430.8	429.4	425.3	419.7	412.7	404.4	394.6	384.8	373.7	363.2
160°	415.5	416.2	416.2	412.0	407.1	402.3	395.3	387.6	378.6	369.5	361.8
162.5°	401.6	402.3	402.3	398.8	396.0	391.8	385.5	379.3	372.3	365.3	359.0
165°	389.7	389.7	390.4	387.6	384.8	381.3	376.5	372.3	366.7	361.1	356.2
167.5°	377.9	377.9	378.6	376.5	375.1	372.3	369.5	366.0	361.1	356.9	353.5
170°	367.4	367.4	368.1	366.7	366.0	364.6	361.8	359.7	356.2	352.8	350.7
172.5°	357.6	358.3	359.7	358.3	358.3	357.6	355.6	354.2	351.4	349.3	348.6
175°	350.7	351.4	352.1	351.4	351.4	351.4	350.0	349.3	347.9	346.5	346.5
177.5°	345.8	345.8	347.2	346.5	347.2	347.2	346.5	345.8	345.1	344.4	345.1
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**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°	13.2	11.2	9.1	7.7	6.3	4.2	2.8	1.4	2.8	4.2	6.3
92.5°	107.4	70.4	48.1	35.6	28.6	22.3	15.3	10.5	15.3	22.3	28.6
95°	253.8	149.9	90.6	63.4	45.3	33.5	25.8	23.7	25.8	33.5	45.3
97.5°	282.3	161.7	103.2	73.2	55.1	44.6	38.3	37.6	38.3	44.6	55.1
100°	262.8	159.6	110.8	83.7	66.9	57.2	52.3	51.6	52.3	57.2	66.9
102.5°	246.1	162.4	119.9	95.5	80.9	71.8	67.6	66.2	67.6	71.8	80.9
105°	239.8	168.0	130.4	108.8	95.5	87.1	83.0	80.9	83.0	87.1	95.5
107.5°	238.4	177.1	143.6	123.4	110.8	102.5	98.3	96.2	98.3	102.5	110.8
110°	241.9	188.9	157.6	138.0	126.2	118.5	115.0	112.9	115.0	118.5	126.2





TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	248.9	200.8	172.2	153.4	141.5	133.9	130.4	128.3	130.4	133.9	141.5
115°	256.6	214.0	187.5	168.7	156.9	149.9	145.7	142.9	145.7	149.9	156.9
117.5°	266.3	228.0	201.5	184.0	170.8	164.5	161.0	157.6	161.0	164.5	170.8
120°	277.5	241.2	216.1	198.7	185.4	178.5	175.0	172.9	175.0	178.5	185.4
122.5°	287.9	255.2	230.8	211.9	199.4	191.7	188.2	186.1	188.2	191.7	199.4
125°	299.1	268.4	244.0	225.2	211.9	204.3	200.1	198.7	200.1	204.3	211.9
127.5°	308.1	280.3	256.6	237.7	223.1	215.4	210.5	208.4	210.5	215.4	223.1
130°	317.2	290.7	267.7	248.9	234.2	225.9	219.6	217.5	219.6	225.9	234.2
132.5°	325.6	299.8	277.5	259.3	244.7	234.2	227.3	224.5	227.3	234.2	244.7
135°	332.5	308.8	287.2	268.4	253.8	243.3	235.6	232.9	235.6	243.3	253.8
137.5°	338.1	315.1	294.2	276.8	262.1	251.0	243.3	240.5	243.3	251.0	262.1
140°	342.3	321.4	301.2	283.7	269.8	258.6	251.7	248.2	251.7	258.6	269.8
142.5°	346.5	326.3	306.7	290.7	276.8	267.0	259.3	256.6	259.3	267.0	276.8
145°	349.3	330.5	312.3	296.3	284.4	274.0	267.7	265.6	267.7	274.0	284.4
147.5°	351.4	333.9	317.2	303.3	291.4	282.3	276.1	274.7	276.1	282.3	291.4
150°	352.1	337.4	321.4	308.8	299.1	290.0	284.4	283.7	284.4	290.0	299.1
152.5°	353.5	339.5	326.3	314.4	306.1	298.4	292.8	292.8	292.8	298.4	306.1
155°	353.5	342.3	330.5	320.7	313.0	306.1	301.9	301.9	301.9	306.1	313.0
157.5°	354.2	343.7	333.9	326.3	319.3	313.0	309.5	308.8	309.5	313.0	319.3
160°	354.2	345.8	337.4	330.5	325.6	320.0	317.2	317.2	317.2	320.0	325.6
162.5°	353.5	346.5	339.5	333.9	329.8	325.6	323.5	323.5	323.5	325.6	329.8
165°	352.1	347.2	341.6	336.7	333.9	330.5	329.1	329.8	329.1	330.5	333.9
167.5°	351.4	347.2	343.0	339.5	337.4	334.6	333.9	334.6	333.9	334.6	337.4
170°	349.3	346.5	343.0	341.6	340.2	338.1	337.4	338.8	337.4	338.1	340.2
172.5°	348.6	346.5	343.7	343.0	342.3	340.9	340.9	341.6	340.9	340.9	342.3
175°	347.2	345.8	344.4	343.7	343.7	342.3	343.0	343.7	343.0	342.3	343.7
177.5°	346.5	345.1	344.4	344.4	344.4	343.7	344.4	345.1	344.4	343.7	344.4
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**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°	7.7	9.1	11.2	13.2	15.3	17.4	16.7	17.4	18.1	18.8	20.2
92.5°	35.6	48.1	70.4	107.4	143.6	129.7	96.9	69.0	53.7	46.7	41.8
95°	63.4	90.6	149.9	253.8	368.1	413.4	335.3	251.0	170.1	133.2	108.1
97.5°	73.2	103.2	161.7	282.3	474.8	635.8	657.4	576.5	435.0	343.0	263.5
100°	83.7	110.8	159.6	262.8	446.2	660.2	797.5	821.9	765.5	683.9	584.9
102.5°	95.5	119.9	162.4	246.1	404.4	614.9	804.5	903.5	915.4	876.3	822.6
105°	108.8	130.4	168.0	239.8	371.6	560.5	760.6	906.3	976.0	989.3	971.1
107.5°	123.4	143.6	177.1	238.4	347.9	512.4	697.9	864.5	973.9	1028.3	1047.1
110°	138.0	157.6	188.9	241.9	335.3	472.7	639.3	798.9	927.2	1015.1	1063.9



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	153.4	172.2	200.8	248.9	328.4	446.2	588.4	734.1	865.9	967.0	1033.2
115°	168.7	187.5	214.0	256.6	327.7	428.8	549.4	678.3	799.6	902.1	978.1
117.5°	184.0	201.5	228.0	266.3	328.4	416.9	523.6	635.1	742.5	836.6	915.4
120°	198.7	216.1	241.2	277.5	331.1	409.2	504.0	602.3	696.5	780.1	850.5
122.5°	211.9	230.8	255.2	287.9	336.0	404.4	488.0	576.5	659.5	735.5	799.6
125°	225.2	244.0	268.4	299.1	340.9	400.2	474.8	554.2	630.2	697.2	752.9
127.5°	237.7	256.6	280.3	308.1	346.5	398.1	462.2	534.0	603.0	664.4	716.0
130°	248.9	267.7	290.7	317.2	352.1	396.0	452.5	515.2	577.9	634.4	681.8
132.5°	259.3	277.5	299.8	325.6	356.2	395.3	443.4	497.8	554.2	605.8	650.4
135°	268.4	287.2	308.8	332.5	360.4	394.6	435.7	482.4	531.9	577.2	617.0
137.5°	276.8	294.2	315.1	338.1	363.2	393.2	428.8	467.8	509.6	550.1	585.6
140°	283.7	301.2	321.4	342.3	366.0	392.5	422.5	455.2	490.8	524.3	554.2
142.5°	290.7	306.7	326.3	346.5	368.1	391.1	416.9	443.4	472.7	500.6	525.7
145°	296.3	312.3	330.5	349.3	368.8	389.7	412.0	434.3	457.3	479.6	499.9
147.5°	303.3	317.2	333.9	351.4	368.8	387.6	407.1	426.7	445.5	464.3	478.9
150°	308.8	321.4	337.4	352.1	368.8	384.8	402.3	418.3	434.3	449.0	462.2
152.5°	314.4	326.3	339.5	353.5	366.7	381.3	396.7	410.6	423.9	436.4	446.9
155°	320.7	330.5	342.3	353.5	365.3	377.2	391.1	403.0	414.1	424.6	432.9
157.5°	326.3	333.9	343.7	354.2	363.2	373.7	384.8	394.6	404.4	412.7	419.7
160°	330.5	337.4	345.8	354.2	361.8	369.5	378.6	387.6	395.3	402.3	407.1
162.5°	333.9	339.5	346.5	353.5	359.0	365.3	372.3	379.3	385.5	391.8	396.0
165°	336.7	341.6	347.2	352.1	356.2	361.1	366.7	372.3	376.5	381.3	384.8
167.5°	339.5	343.0	347.2	351.4	353.5	356.9	361.1	366.0	369.5	372.3	375.1
170°	341.6	343.0	346.5	349.3	350.7	352.8	356.2	359.7	361.8	364.6	366.0
172.5°	343.0	343.7	346.5	348.6	348.6	349.3	351.4	354.2	355.6	357.6	358.3
175°	343.7	344.4	345.8	347.2	346.5	346.5	347.9	349.3	350.0	351.4	351.4
177.5°	344.4	344.4	345.1	346.5	345.1	344.4	345.1	345.8	346.5	347.2	347.2
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**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°	19.5	20.2	20.9	20.2
92.5°	40.4	37.6	38.3	36.9
95°	94.8	88.5	83.7	80.9
97.5°	216.8	190.3	173.6	165.9
100°	514.5	463.6	436.4	437.1
102.5°	771.8	734.1	712.5	692.3
105°	939.1	912.6	890.3	886.8
107.5°	1042.9	1030.4	1021.3	1013.7
110°	1083.4	1089.0	1087.6	1086.2



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	1072.9	1093.1	1100.1	1100.8
115°	1030.4	1061.1	1075.0	1078.5
117.5°	969.7	1003.9	1024.8	1029.7
120°	905.6	944.6	961.4	965.6
122.5°	847.0	881.2	900.0	905.6
125°	797.5	828.2	845.7	850.5
127.5°	756.4	782.9	798.9	803.1
130°	718.8	743.9	758.5	764.1
132.5°	684.6	709.7	722.3	725.7
135°	651.1	672.1	684.6	689.5
137.5°	614.9	636.5	647.0	651.1
140°	580.7	600.3	611.4	610.7
142.5°	547.3	564.0	573.8	573.1
145°	517.3	531.9	537.5	538.9
147.5°	492.9	503.3	508.9	509.6
150°	472.7	480.3	484.5	484.5
152.5°	454.5	461.5	463.6	463.6
155°	439.2	444.8	446.2	446.9
157.5°	425.3	429.4	430.8	430.8
160°	412.0	416.2	416.2	415.5
162.5°	398.8	402.3	402.3	401.6
165°	387.6	390.4	389.7	389.7
167.5°	376.5	378.6	377.9	377.9
170°	366.7	368.1	367.4	367.4
172.5°	358.3	359.7	358.3	357.6
175°	351.4	352.1	351.4	350.7
177.5°	346.5	347.2	345.8	345.8
180°	344.4	344.4	344.4	344.4



TEST NUMBER: P831896

CATALOG NUMBER: S123RDIP-S1000D805U940-4F0-1E-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	13.56	14.45	14.44	15.34	16.47	18.22	19.11	19.11	20.01	21.14
	3H	14.79	15.58	15.68	16.48	17.64	19.73	20.52	20.62	21.42	22.58
	4H	15.17	15.92	16.08	16.83	17.99	20.22	20.97	21.13	21.88	23.04
	6H	15.45	16.14	16.38	17.06	18.24	20.54	21.22	21.46	22.14	23.32
	8H	15.54	16.20	16.47	17.13	18.31	20.62	21.27	21.54	22.20	23.38
	12H	15.60	16.22	16.53	17.14	18.35	20.65	21.27	21.58	22.20	23.40
4H	2H	14.29	15.04	15.21	15.95	17.11	18.23	18.98	19.14	19.88	21.05
	3H	15.67	16.29	16.59	17.23	18.41	19.89	20.51	20.81	21.45	22.63
	4H	16.12	16.69	17.06	17.62	18.83	20.50	21.06	21.43	22.00	23.21
	6H	16.49	16.98	17.44	17.94	19.15	20.94	21.43	21.89	22.38	23.59
	8H	16.62	17.07	17.57	18.03	19.25	21.07	21.53	22.02	22.48	23.70
	12H	16.70	17.11	17.67	18.08	19.30	21.14	21.54	22.10	22.51	23.74
8H	4H	16.44	16.89	17.39	17.85	19.07	20.47	20.92	21.42	21.88	23.10
	6H	16.91	17.28	17.88	18.27	19.49	20.97	21.34	21.94	22.34	23.56
	8H	17.10	17.43	18.08	18.41	19.65	21.15	21.48	22.14	22.47	23.71
	12H	17.24	17.53	18.23	18.51	19.79	21.27	21.56	22.26	22.54	23.83
12H	4H	16.45	16.86	17.42	17.83	19.06	20.42	20.83	21.39	21.80	23.03
	6H	16.97	17.29	17.95	18.28	19.52	20.94	21.27	21.93	22.26	23.49
	8H	17.19	17.48	18.17	18.45	19.74	21.14	21.43	22.13	22.41	23.69