

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: P832238

Luminaire Tested: S123RDIP-S560D365U927-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832238  
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-S560D365U927-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 560 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

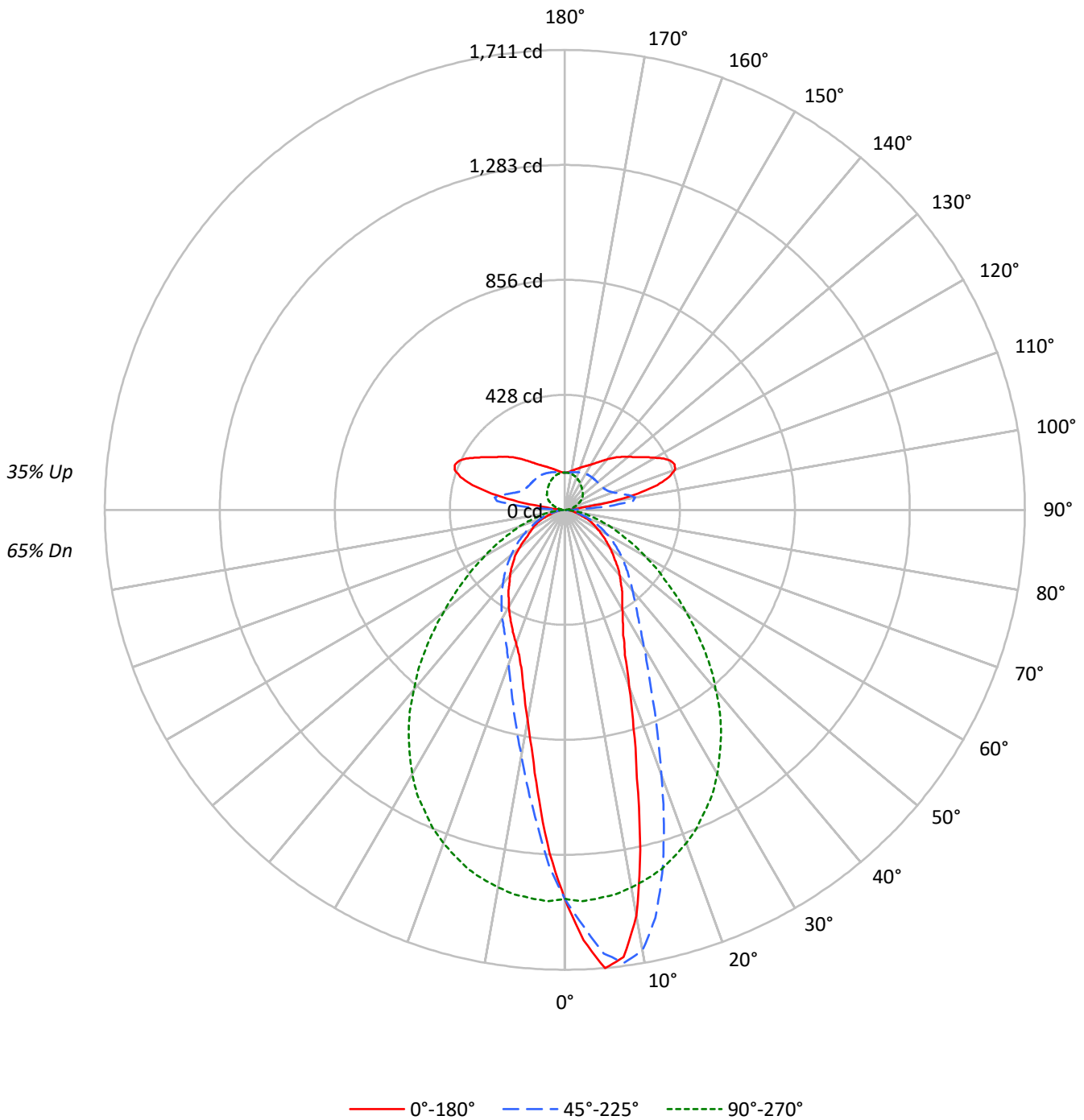
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2959.2 lumens  
Efficiency: N/A  
Efficacy: 100.0 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): 29.6  
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65				
1	102	98	94	91	96	92	89	86	82	80	77	72	70	69	63	62	61	57				
2	94	87	81	76	88	82	77	73	73	69	66	65	62	59	57	55	53	49				
3	86	78	71	65	81	73	67	62	66	61	57	58	55	52	52	49	47	43				
4	80	70	62	56	75	66	59	54	59	54	50	53	49	45	47	44	41	38				
5	74	63	55	49	69	60	53	48	54	48	44	48	44	40	43	40	37	34				
6	69	57	49	44	65	54	47	42	49	43	39	44	40	36	40	36	33	31				
7	64	52	44	39	60	50	43	38	45	39	35	41	36	33	37	33	30	28				
8	60	48	40	35	56	46	39	34	42	36	32	38	33	30	34	30	28	25				
9	56	44	37	32	53	42	36	31	39	33	29	35	31	27	32	28	25	23				
10	53	41	34	29	50	39	33	28	36	31	27	33	28	25	30	26	23	22				

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

	0°	45°	90°	135°	180°
0°	15573	15573	15573	15573	15573
5°	18492	17902	15672	12669	11761
10°	16753	18183	15593	10151	8708
15°	11535	15591	15428	8296	6888
20°	8025	12003	15119	6995	6054
25°	6115	9149	14668	6217	5580
30°	5323	7315	14105	5773	5168
35°	4887	6169	13306	5398	4794
40°	4460	5510	12261	5030	4451
45°	4028	5039	11134	4682	4109
50°	3656	4649	9805	4340	3686
55°	3307	4269	8527	4008	3162
60°	2962	3881	7408	3640	2988
65°	2735	3443	6375	3270	2825
70°	2222	2977	5564	2958	2297
75°	1951	2366	4712	2454	2021
80°	1767	2002	3862	2058	1909
85°	1618	1754	2927	1865	1754

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 11749 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.9	4.5
10°-20°	305.2	10.3
20°-30°	350.1	11.8
30°-40°	345.1	11.7
40°-50°	304.3	10.3
50°-60°	234.1	7.9
60°-70°	153.9	5.2
70°-80°	74.8	2.5
80°-90°	19.6	0.7
90°-100°	75.1	2.5
100°-110°	219.7	7.4
110°-120°	214.5	7.3
120°-130°	170.9	5.8
130°-140°	134.8	4.6
140°-150°	100.6	3.4
150°-160°	70.1	2.4
160°-170°	41.2	1.4
170°-180°	13.4	0.5
0°-30°	787.2	26.6
0°-40°	1132.3	38.3
0°-60°	1670.7	56.5
0°-90°	1919.0	64.8
90°-120°	509.3	17.2
90°-150°	915.5	30.9
90°-180°	1040.0	35.1
0°-180°	2959.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1447	1447	1447	1447	1447	
5°	1711	1657	1450	1172	1088	156
15°	1035	1399	1384	744	618	292
25°	515	770	1235	524	470	243
35°	372	470	1013	411	365	232
45°	265	331	731	308	270	205
55°	176	228	454	214	168	158
65°	107	135	250	128	111	105
75°	47	57	113	59	49	50
85°	13	14	24	15	14	14
90°	8	7	1	7	8	5
95°	32	166	10	166	32	53
105°	356	225	32	225	356	355
115°	433	172	57	172	433	422
125°	342	161	80	161	342	309
135°	277	158	94	158	277	215
145°	216	156	107	156	216	137
155°	179	151	121	151	179	84
165°	156	145	132	145	156	45
175°	141	139	138	139	141	14
180°	138	138	138	138	138	

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8
2.5°	1603.4	1598.4	1593.3	1591.8	1590.4	1585.6	1580.9	1570.2	1559.5	1548.5	1537.6
5°	1711.4	1712.0	1712.6	1711.1	1709.6	1703.4	1697.1	1684.1	1671.0	1656.8	1642.6
7.5°	1678.2	1687.7	1697.1	1698.9	1700.7	1705.4	1710.2	1707.2	1704.3	1698.9	1693.6
10°	1532.8	1532.2	1531.6	1542.3	1553.0	1584.7	1616.5	1632.8	1649.1	1663.6	1678.2
12.5°	1295.5	1296.4	1297.3	1332.3	1367.3	1397.3	1427.2	1468.8	1510.3	1555.1	1599.9
15°	1035.1	1049.7	1064.2	1095.3	1126.5	1171.6	1216.7	1272.4	1328.2	1399.1	1469.9
17.5°	850.1	856.3	862.5	892.5	922.4	965.1	1007.8	1071.0	1134.2	1225.5	1316.9
20°	700.6	706.2	711.8	733.5	755.1	796.1	837.0	897.2	957.4	1047.9	1138.3
22.5°	584.9	595.9	606.8	621.4	635.9	665.6	695.2	756.6	818.0	900.5	982.9
25°	514.9	519.9	525.0	537.4	549.9	578.4	606.8	647.5	688.1	770.3	852.4
27.5°	467.4	468.9	470.4	479.6	488.8	507.2	525.6	563.2	600.9	668.5	736.2
30°	428.3	431.0	433.6	440.7	447.9	461.2	474.6	501.3	527.9	588.5	649.0
32.5°	398.0	399.5	401.0	406.9	412.9	422.7	432.4	453.5	474.6	520.8	567.1
35°	371.9	372.2	372.5	377.0	381.4	390.9	400.4	417.9	435.4	469.5	503.6
37.5°	342.3	344.4	346.4	349.7	353.0	361.3	369.6	383.8	398.0	426.2	454.4
40°	317.4	319.1	320.9	324.8	328.6	335.2	341.7	354.7	367.8	392.1	416.4
42.5°	292.4	293.6	294.8	298.7	302.5	310.5	318.5	328.9	339.3	359.5	379.6
45°	264.6	267.5	270.5	274.7	278.8	285.6	292.4	303.1	313.8	331.0	348.2
47.5°	241.4	242.9	244.4	248.0	251.5	259.8	268.1	277.6	287.1	303.1	319.1
50°	218.3	218.9	219.5	222.7	226.0	233.4	240.8	251.8	262.8	277.6	292.4
52.5°	196.3	197.8	199.3	202.6	205.8	210.9	215.9	227.2	238.5	253.0	267.5
55°	176.2	177.1	178.0	180.3	182.7	188.6	194.6	204.4	214.1	227.5	240.8
57.5°	157.2	158.4	159.6	161.4	163.1	168.5	173.8	182.4	191.0	204.4	217.7
60°	137.6	139.1	140.6	142.7	144.7	148.9	153.0	160.8	168.5	180.3	192.2
62.5°	123.4	123.7	124.0	125.8	127.5	130.5	133.5	139.7	145.9	157.8	169.7
65°	107.4	108.3	109.1	110.0	110.9	113.3	115.7	121.0	126.4	135.2	144.1
67.5°	90.8	91.6	92.5	94.0	95.5	97.6	99.7	103.2	106.8	115.1	123.4
70°	70.6	70.6	70.6	73.0	75.3	78.9	82.5	85.1	87.8	94.6	101.4
72.5°	57.5	57.8	58.1	58.4	58.7	60.8	62.9	67.3	71.8	75.9	80.1
75°	46.9	47.2	47.5	47.8	48.0	48.6	49.2	50.7	52.2	56.9	61.7
77.5°	37.4	37.7	38.0	38.3	38.6	39.2	39.7	40.3	40.9	42.7	44.5
80°	28.5	28.8	29.1	29.4	29.7	30.0	30.3	30.8	31.4	32.3	33.2
82.5°	20.8	20.8	20.8	20.8	20.8	21.4	21.9	21.9	21.9	22.5	23.1
85°	13.1	13.1	13.1	13.3	13.6	13.6	13.6	13.9	14.2	14.2	14.2
87.5°	5.9	5.6	5.3	5.6	5.9	5.9	5.9	6.2	6.5	6.5	6.5
90°	8.1	8.4	8.1	7.8	8.1	7.6	7.3	7.0	6.7	7.0	6.2
92.5°	14.8	15.4	15.1	16.2	16.8	18.8	21.6	27.7	38.9	52.1	57.7
95°	32.5	33.6	35.6	38.1	43.4	53.5	68.3	100.8	134.7	166.0	147.8
97.5°	66.6	69.7	76.4	87.1	105.8	137.7	174.7	231.5	264.0	255.3	190.6
100°	175.5	175.2	186.2	206.6	234.9	274.6	307.4	330.1	320.3	265.1	179.2
102.5°	278.0	286.1	294.8	309.9	330.3	351.9	367.6	362.8	323.1	246.9	162.4
105°	356.1	357.5	366.4	377.1	390.0	397.2	391.9	363.9	305.4	225.1	149.2
107.5°	407.0	410.1	413.8	418.8	420.5	412.9	391.1	347.1	280.2	205.8	139.7
110°	436.1	436.7	437.3	435.0	427.2	407.6	372.3	320.8	256.7	189.8	134.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	442.0	441.7	438.9	430.8	414.9	388.3	347.7	294.8	236.3	179.2	131.9
115°	433.1	431.7	426.1	413.8	392.8	362.2	321.1	272.4	220.6	172.2	131.6
117.5°	413.5	411.5	403.1	389.4	367.6	335.9	298.1	255.0	210.2	167.4	131.9
120°	387.7	386.0	379.3	363.6	341.5	313.3	279.7	241.9	202.4	164.3	133.0
122.5°	363.6	361.4	353.8	340.1	321.1	295.3	264.8	231.5	196.0	162.4	134.9
125°	341.5	339.6	332.6	320.3	302.3	279.9	253.1	222.6	190.6	160.7	136.9
127.5°	322.5	320.8	314.4	303.7	287.5	266.8	242.1	214.4	185.6	159.8	139.1
130°	306.8	304.6	298.7	288.6	273.8	254.7	232.1	206.9	181.7	159.0	141.4
132.5°	291.4	290.0	285.0	274.9	261.2	243.3	222.6	199.9	178.0	158.7	143.1
135°	276.9	274.9	269.9	261.5	247.7	231.8	213.6	193.7	175.0	158.4	144.7
137.5°	261.5	259.8	255.6	246.9	235.2	220.9	204.6	187.8	172.2	157.9	145.8
140°	245.2	245.5	241.0	233.2	222.6	210.5	197.1	182.8	169.6	157.6	147.0
142.5°	230.1	230.4	226.5	219.8	211.1	201.0	189.8	178.0	167.4	157.0	147.8
145°	216.4	215.8	213.6	207.7	200.7	192.6	183.6	174.4	165.4	156.5	148.1
147.5°	204.6	204.4	202.1	197.9	192.3	186.4	178.9	171.3	163.5	155.6	148.1
150°	194.6	194.6	192.9	189.8	185.6	180.3	174.4	168.0	161.5	154.5	148.1
152.5°	186.2	186.2	185.3	182.5	179.4	175.2	170.2	164.9	159.3	153.1	147.2
155°	179.4	179.2	178.6	176.4	173.8	170.5	166.3	161.8	157.0	151.4	146.7
157.5°	173.0	173.0	172.4	170.8	168.5	165.7	162.4	158.4	154.5	150.0	145.8
160°	166.8	167.1	167.1	165.4	163.5	161.5	158.7	155.6	152.0	148.4	145.3
162.5°	161.2	161.5	161.5	160.1	159.0	157.3	154.8	152.3	149.5	146.7	144.2
165°	156.5	156.5	156.8	155.6	154.5	153.1	151.2	149.5	147.2	145.0	143.1
167.5°	151.7	151.7	152.0	151.2	150.6	149.5	148.4	147.0	145.0	143.3	141.9
170°	147.5	147.5	147.8	147.2	147.0	146.4	145.3	144.4	143.1	141.7	140.8
172.5°	143.6	143.9	144.4	143.9	143.9	143.6	142.8	142.2	141.1	140.3	140.0
175°	140.8	141.1	141.4	141.1	141.1	141.1	140.5	140.3	139.7	139.1	139.1
177.5°	138.9	138.9	139.4	139.1	139.4	139.4	139.1	138.9	138.6	138.3	138.6
180°	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8
2.5°	1536.1	1534.6	1520.4	1506.1	1492.2	1478.3	1467.9	1457.5	1440.0	1422.5	1411.5
5°	1631.3	1620.0	1597.5	1574.9	1541.1	1507.3	1478.8	1450.4	1414.2	1378.0	1347.7
7.5°	1684.4	1675.2	1647.9	1620.6	1575.8	1531.0	1486.6	1442.1	1388.7	1335.3	1289.6
10°	1685.9	1693.6	1671.0	1648.5	1598.1	1547.7	1487.1	1426.6	1354.9	1283.1	1224.1
12.5°	1633.1	1666.3	1661.6	1656.8	1605.5	1554.2	1480.6	1407.1	1319.0	1230.9	1157.0
15°	1534.3	1598.7	1617.7	1636.6	1594.2	1551.8	1468.2	1384.5	1281.0	1177.5	1092.7
17.5°	1407.1	1497.2	1547.4	1597.5	1566.6	1535.8	1444.1	1352.5	1235.9	1119.4	1027.1
20°	1256.4	1374.4	1453.0	1531.6	1520.4	1509.1	1414.5	1319.9	1194.1	1068.4	968.4
22.5°	1107.5	1232.1	1340.6	1449.2	1460.8	1472.3	1376.8	1281.3	1143.7	1006.1	904.3
25°	979.1	1105.7	1235.0	1364.4	1390.5	1416.6	1325.8	1235.0	1092.4	949.7	848.6
27.5°	856.6	977.0	1119.4	1261.7	1309.2	1356.6	1273.6	1190.6	1042.0	893.4	792.5
30°	756.6	864.3	1009.6	1155.0	1221.1	1287.2	1211.0	1134.8	987.4	840.0	741.2
32.5°	663.5	759.9	905.8	1051.7	1128.6	1205.4	1139.5	1073.7	931.9	790.1	692.6
35°	589.9	676.2	812.4	948.5	1034.5	1120.6	1066.6	1012.6	874.1	735.6	643.3
37.5°	526.8	599.1	727.0	854.8	946.2	1037.5	992.4	947.3	817.1	686.9	599.7
40°	474.6	532.7	651.6	770.6	860.1	949.7	911.2	872.6	756.0	639.5	557.9
42.5°	429.8	479.9	586.7	693.4	775.6	857.8	832.3	806.8	701.2	595.6	519.9
45°	390.3	432.4	526.5	620.5	696.1	771.8	751.6	731.4	640.4	549.3	479.9
47.5°	355.3	391.5	475.4	559.4	627.3	695.2	676.5	657.9	582.5	507.2	444.0
50°	323.3	354.1	424.1	494.1	555.2	616.3	600.9	585.5	523.2	460.9	406.3
52.5°	293.0	318.5	381.4	444.3	493.5	542.8	530.9	519.0	471.0	423.0	373.4
55°	264.3	287.7	340.8	393.9	436.0	478.1	466.3	454.4	417.0	379.6	336.0
57.5°	238.2	258.6	301.6	344.6	378.2	411.7	406.0	400.4	369.3	338.1	302.2
60°	210.6	229.0	266.0	303.1	330.1	357.1	350.6	344.1	321.8	299.6	268.7
62.5°	186.0	202.3	231.9	261.6	283.5	305.5	300.8	296.0	279.1	262.2	236.7
65°	160.2	176.2	200.2	224.2	241.4	258.6	254.5	250.3	237.6	224.8	204.4
67.5°	136.7	150.1	170.8	191.6	203.2	214.7	212.4	210.0	200.2	190.4	174.4
70°	113.0	124.6	141.8	159.0	167.0	175.0	175.9	176.8	167.9	159.0	147.1
72.5°	89.3	98.5	114.5	130.5	136.7	143.0	142.7	142.4	137.0	131.7	121.0
75°	68.5	75.3	87.8	100.3	105.6	110.9	112.1	113.3	108.3	103.2	97.3
77.5°	49.2	54.0	63.5	73.0	78.9	84.8	85.4	86.0	83.6	81.3	75.6
80°	34.7	36.2	42.1	48.0	54.3	60.5	61.4	62.3	59.9	57.5	54.0
82.5°	24.0	24.9	27.0	29.1	34.1	39.2	40.3	41.5	40.3	39.2	35.3
85°	14.5	14.8	15.7	16.6	19.0	21.4	22.5	23.7	23.1	22.5	20.5
87.5°	6.5	6.5	6.8	7.1	7.7	8.3	9.8	11.3	10.4	9.5	8.6
90°	5.3	4.5	3.6	3.1	2.5	1.7	1.1	0.6	1.1	1.7	2.5
92.5°	43.1	28.3	19.3	14.3	11.5	9.0	6.2	4.2	6.2	9.0	11.5
95°	101.9	60.2	36.4	25.5	18.2	13.4	10.4	9.5	10.4	13.4	18.2
97.5°	113.4	64.9	41.4	29.4	22.1	17.9	15.4	15.1	15.4	17.9	22.1
100°	105.5	64.1	44.5	33.6	26.9	23.0	21.0	20.7	21.0	23.0	26.9
102.5°	98.8	65.2	48.1	38.4	32.5	28.8	27.2	26.6	27.2	28.8	32.5
105°	96.3	67.5	52.3	43.7	38.4	35.0	33.3	32.5	33.3	35.0	38.4
107.5°	95.7	71.1	57.7	49.5	44.5	41.2	39.5	38.6	39.5	41.2	44.5
110°	97.1	75.9	63.3	55.4	50.7	47.6	46.2	45.4	46.2	47.6	50.7





TEST NUMBER: P832238

CATALOG NUMBER: S123RDIP-S560D365U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	99.9	80.6	69.1	61.6	56.8	53.7	52.3	51.5	52.3	53.7	56.8
115°	103.0	85.9	75.3	67.7	63.0	60.2	58.5	57.4	58.5	60.2	63.0
117.5°	106.9	91.5	80.9	73.9	68.6	66.1	64.7	63.3	64.7	66.1	68.6
120°	111.4	96.9	86.8	79.8	74.5	71.7	70.3	69.4	70.3	71.7	74.5
122.5°	115.6	102.5	92.7	85.1	80.1	77.0	75.6	74.7	75.6	77.0	80.1
125°	120.1	107.8	98.0	90.4	85.1	82.0	80.3	79.8	80.3	82.0	85.1
127.5°	123.7	112.5	103.0	95.5	89.6	86.5	84.5	83.7	84.5	86.5	89.6
130°	127.4	116.7	107.5	99.9	94.1	90.7	88.2	87.3	88.2	90.7	94.1
132.5°	130.7	120.4	111.4	104.1	98.3	94.1	91.3	90.1	91.3	94.1	98.3
135°	133.5	124.0	115.3	107.8	101.9	97.7	94.6	93.5	94.6	97.7	101.9
137.5°	135.8	126.5	118.1	111.1	105.3	100.8	97.7	96.6	97.7	100.8	105.3
140°	137.5	129.1	120.9	113.9	108.3	103.9	101.1	99.7	101.1	103.9	108.3
142.5°	139.1	131.0	123.2	116.7	111.1	107.2	104.1	103.0	104.1	107.2	111.1
145°	140.3	132.7	125.4	119.0	114.2	110.0	107.5	106.7	107.5	110.0	114.2
147.5°	141.1	134.1	127.4	121.8	117.0	113.4	110.9	110.3	110.9	113.4	117.0
150°	141.4	135.5	129.1	124.0	120.1	116.5	114.2	113.9	114.2	116.5	120.1
152.5°	141.9	136.3	131.0	126.3	122.9	119.8	117.6	117.6	117.6	119.8	122.9
155°	141.9	137.5	132.7	128.8	125.7	122.9	121.2	121.2	121.2	122.9	125.7
157.5°	142.2	138.0	134.1	131.0	128.2	125.7	124.3	124.0	124.3	125.7	128.2
160°	142.2	138.9	135.5	132.7	130.7	128.5	127.4	127.4	127.4	128.5	130.7
162.5°	141.9	139.1	136.3	134.1	132.4	130.7	129.9	129.9	129.9	130.7	132.4
165°	141.4	139.4	137.2	135.2	134.1	132.7	132.1	132.4	132.1	132.7	134.1
167.5°	141.1	139.4	137.7	136.3	135.5	134.4	134.1	134.4	134.1	134.4	135.5
170°	140.3	139.1	137.7	137.2	136.6	135.8	135.5	136.1	135.5	135.8	136.6
172.5°	140.0	139.1	138.0	137.7	137.5	136.9	136.9	137.2	136.9	136.9	137.5
175°	139.4	138.9	138.3	138.0	138.0	137.5	137.7	138.0	137.7	137.5	138.0
177.5°	139.1	138.6	138.3	138.3	138.3	138.0	138.3	138.6	138.3	138.0	138.3
180°	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3



TEST NUMBER: P832238

CATALOG NUMBER: S123RDIP-S560D365U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8	1446.8
2.5°	1400.5	1383.6	1366.7	1354.6	1342.4	1327.3	1312.2	1311.6	1311.0	1299.7	1288.4
5°	1317.5	1288.1	1258.8	1230.0	1201.2	1172.5	1143.7	1137.2	1130.6	1120.8	1111.1
7.5°	1243.9	1197.1	1150.2	1113.4	1076.7	1047.9	1019.1	999.5	980.0	964.8	949.7
10°	1165.0	1106.9	1048.8	1004.3	959.8	928.7	897.5	875.0	852.4	841.7	831.1
12.5°	1083.2	1020.0	956.8	913.2	869.6	832.3	794.9	774.4	754.0	739.1	724.3
15°	1007.8	939.9	872.0	825.7	779.5	744.5	709.5	689.0	668.5	653.7	638.9
17.5°	934.9	866.4	797.9	751.0	704.1	672.4	640.7	620.8	600.9	591.7	582.5
20°	868.4	799.3	730.2	686.0	641.8	610.7	579.6	568.9	558.2	549.6	541.0
22.5°	802.6	736.2	669.7	627.3	584.9	562.4	539.8	531.2	522.6	516.1	509.6
25°	747.4	681.3	615.1	578.1	541.0	523.5	506.0	500.4	494.7	488.2	481.7
27.5°	691.7	628.8	565.9	536.3	506.6	492.4	478.1	471.0	463.9	458.5	453.2
30°	642.4	584.3	526.2	501.5	476.9	464.5	452.0	444.3	436.6	431.6	426.5
32.5°	595.0	543.4	491.8	470.7	449.6	437.5	425.3	417.9	410.5	404.6	398.6
35°	551.1	506.3	461.5	442.2	423.0	410.8	398.6	391.2	383.8	377.9	371.9
37.5°	512.5	471.9	431.3	413.2	395.1	384.4	373.7	366.0	358.3	352.1	345.8
40°	476.3	440.5	404.6	387.1	369.6	358.0	346.4	339.6	332.8	327.1	321.5
42.5°	444.3	411.4	378.5	361.3	344.1	333.1	322.1	314.1	306.1	302.8	299.6
45°	410.5	381.4	352.4	335.8	319.1	307.6	296.0	289.2	282.4	279.4	276.4
47.5°	380.8	353.8	326.9	310.5	294.2	283.8	273.5	268.1	262.8	258.6	254.5
50°	351.8	325.7	299.6	283.8	268.1	259.2	250.3	243.8	237.3	234.3	231.3
52.5°	323.9	300.2	276.4	260.4	244.4	235.8	227.2	221.6	215.9	209.7	203.5
55°	292.4	271.7	250.9	236.7	222.4	213.6	204.7	198.1	191.6	185.1	178.6
57.5°	266.3	245.9	225.4	212.7	199.9	191.3	182.7	175.6	168.5	163.1	157.8
60°	237.9	220.1	202.3	189.8	177.4	169.1	160.8	153.9	147.1	144.4	141.8
62.5°	211.2	194.6	178.0	167.0	156.0	148.0	140.0	135.5	131.1	129.3	127.5
65°	183.9	169.7	155.4	145.3	135.2	128.4	121.6	119.5	117.5	116.0	114.5
67.5°	158.4	146.2	134.1	125.2	116.3	111.5	106.8	104.4	102.0	100.3	98.5
70°	135.2	124.6	113.9	106.2	98.5	94.0	89.6	87.5	85.4	82.2	78.9
72.5°	110.3	102.0	93.7	87.8	81.9	78.0	74.1	70.0	65.8	62.9	59.9
75°	91.4	83.0	74.7	69.1	63.5	59.0	54.6	53.1	51.6	50.7	49.8
77.5°	70.0	62.9	55.8	51.3	46.9	44.8	42.7	41.8	40.9	40.6	40.3
80°	50.4	44.5	38.6	36.2	33.8	33.2	32.6	32.0	31.4	31.1	30.8
82.5°	31.4	28.5	25.5	24.9	24.3	24.0	23.7	23.4	23.1	22.8	22.5
85°	18.4	17.2	16.0	15.7	15.4	15.1	14.8	14.8	14.8	14.8	14.8
87.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.4	7.1
90°	3.1	3.6	4.5	5.3	6.2	7.0	6.7	7.0	7.3	7.6	8.1
92.5°	14.3	19.3	28.3	43.1	57.7	52.1	38.9	27.7	21.6	18.8	16.8
95°	25.5	36.4	60.2	101.9	147.8	166.0	134.7	100.8	68.3	53.5	43.4
97.5°	29.4	41.4	64.9	113.4	190.6	255.3	264.0	231.5	174.7	137.7	105.8
100°	33.6	44.5	64.1	105.5	179.2	265.1	320.3	330.1	307.4	274.6	234.9
102.5°	38.4	48.1	65.2	98.8	162.4	246.9	323.1	362.8	367.6	351.9	330.3
105°	43.7	52.3	67.5	96.3	149.2	225.1	305.4	363.9	391.9	397.2	390.0
107.5°	49.5	57.7	71.1	95.7	139.7	205.8	280.2	347.1	391.1	412.9	420.5
110°	55.4	63.3	75.9	97.1	134.7	189.8	256.7	320.8	372.3	407.6	427.2



TEST NUMBER: P832238

CATALOG NUMBER: S123RDIP-S560D365U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	61.6	69.1	80.6	99.9	131.9	179.2	236.3	294.8	347.7	388.3	414.9
115°	67.7	75.3	85.9	103.0	131.6	172.2	220.6	272.4	321.1	362.2	392.8
117.5°	73.9	80.9	91.5	106.9	131.9	167.4	210.2	255.0	298.1	335.9	367.6
120°	79.8	86.8	96.9	111.4	133.0	164.3	202.4	241.9	279.7	313.3	341.5
122.5°	85.1	92.7	102.5	115.6	134.9	162.4	196.0	231.5	264.8	295.3	321.1
125°	90.4	98.0	107.8	120.1	136.9	160.7	190.6	222.6	253.1	279.9	302.3
127.5°	95.5	103.0	112.5	123.7	139.1	159.8	185.6	214.4	242.1	266.8	287.5
130°	99.9	107.5	116.7	127.4	141.4	159.0	181.7	206.9	232.1	254.7	273.8
132.5°	104.1	111.4	120.4	130.7	143.1	158.7	178.0	199.9	222.6	243.3	261.2
135°	107.8	115.3	124.0	133.5	144.7	158.4	175.0	193.7	213.6	231.8	247.7
137.5°	111.1	118.1	126.5	135.8	145.8	157.9	172.2	187.8	204.6	220.9	235.2
140°	113.9	120.9	129.1	137.5	147.0	157.6	169.6	182.8	197.1	210.5	222.6
142.5°	116.7	123.2	131.0	139.1	147.8	157.0	167.4	178.0	189.8	201.0	211.1
145°	119.0	125.4	132.7	140.3	148.1	156.5	165.4	174.4	183.6	192.6	200.7
147.5°	121.8	127.4	134.1	141.1	148.1	155.6	163.5	171.3	178.9	186.4	192.3
150°	124.0	129.1	135.5	141.4	148.1	154.5	161.5	168.0	174.4	180.3	185.6
152.5°	126.3	131.0	136.3	141.9	147.2	153.1	159.3	164.9	170.2	175.2	179.4
155°	128.8	132.7	137.5	141.9	146.7	151.4	157.0	161.8	166.3	170.5	173.8
157.5°	131.0	134.1	138.0	142.2	145.8	150.0	154.5	158.4	162.4	165.7	168.5
160°	132.7	135.5	138.9	142.2	145.3	148.4	152.0	155.6	158.7	161.5	163.5
162.5°	134.1	136.3	139.1	141.9	144.2	146.7	149.5	152.3	154.8	157.3	159.0
165°	135.2	137.2	139.4	141.4	143.1	145.0	147.2	149.5	151.2	153.1	154.5
167.5°	136.3	137.7	139.4	141.1	141.9	143.3	145.0	147.0	148.4	149.5	150.6
170°	137.2	137.7	139.1	140.3	140.8	141.7	143.1	144.4	145.3	146.4	147.0
172.5°	137.7	138.0	139.1	140.0	140.0	140.3	141.1	142.2	142.8	143.6	143.9
175°	138.0	138.3	138.9	139.4	139.1	139.1	139.7	140.3	140.5	141.1	141.1
177.5°	138.3	138.3	138.6	139.1	138.6	138.3	138.6	138.9	139.1	139.4	139.4
180°	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3



TEST NUMBER: P832238

CATALOG NUMBER: S123RDIP-S560D365U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1446.8	1446.8	1446.8	1446.8
2.5°	1285.5	1282.5	1281.3	1280.1
5°	1101.9	1092.7	1090.6	1088.5
7.5°	945.9	942.0	929.2	916.5
10°	819.2	807.3	802.0	796.7
12.5°	713.3	702.3	700.6	698.8
15°	631.2	623.5	620.8	618.1
17.5°	577.2	571.8	568.6	565.3
20°	537.1	533.3	530.9	528.5
22.5°	506.6	503.6	501.8	500.1
25°	477.2	472.8	471.3	469.8
27.5°	449.3	445.5	444.0	442.5
30°	423.2	420.0	417.9	415.8
32.5°	394.8	390.9	389.7	388.5
35°	369.6	367.2	366.0	364.8
37.5°	342.9	339.9	338.1	336.3
40°	320.0	318.5	317.7	316.8
42.5°	296.9	294.2	293.9	293.6
45°	273.8	271.1	270.5	269.9
47.5°	252.1	249.7	249.4	249.1
50°	228.1	224.8	222.4	220.1
52.5°	200.5	197.5	195.5	193.4
55°	175.3	172.0	170.2	168.5
57.5°	156.3	154.8	153.9	153.0
60°	140.9	140.0	139.4	138.8
62.5°	126.6	125.8	125.8	125.8
65°	113.6	112.7	111.8	110.9
67.5°	96.7	94.9	94.6	94.3
70°	76.2	73.6	73.3	73.0
72.5°	59.6	59.3	58.7	58.1
75°	49.2	48.6	48.6	48.6
77.5°	39.7	39.2	39.2	39.2
80°	30.5	30.3	30.5	30.8
82.5°	22.5	22.5	22.2	21.9
85°	14.5	14.2	14.2	14.2
87.5°	7.1	7.1	7.1	7.1
90°	7.8	8.1	8.4	8.1
92.5°	16.2	15.1	15.4	14.8
95°	38.1	35.6	33.6	32.5
97.5°	87.1	76.4	69.7	66.6
100°	206.6	186.2	175.2	175.5
102.5°	309.9	294.8	286.1	278.0
105°	377.1	366.4	357.5	356.1
107.5°	418.8	413.8	410.1	407.0
110°	435.0	437.3	436.7	436.1



TEST NUMBER: P832238

CATALOG NUMBER: S123RDIP-S560D365U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	430.8	438.9	441.7	442.0
115°	413.8	426.1	431.7	433.1
117.5°	389.4	403.1	411.5	413.5
120°	363.6	379.3	386.0	387.7
122.5°	340.1	353.8	361.4	363.6
125°	320.3	332.6	339.6	341.5
127.5°	303.7	314.4	320.8	322.5
130°	288.6	298.7	304.6	306.8
132.5°	274.9	285.0	290.0	291.4
135°	261.5	269.9	274.9	276.9
137.5°	246.9	255.6	259.8	261.5
140°	233.2	241.0	245.5	245.2
142.5°	219.8	226.5	230.4	230.1
145°	207.7	213.6	215.8	216.4
147.5°	197.9	202.1	204.4	204.6
150°	189.8	192.9	194.6	194.6
152.5°	182.5	185.3	186.2	186.2
155°	176.4	178.6	179.2	179.4
157.5°	170.8	172.4	173.0	173.0
160°	165.4	167.1	167.1	166.8
162.5°	160.1	161.5	161.5	161.2
165°	155.6	156.8	156.5	156.5
167.5°	151.2	152.0	151.7	151.7
170°	147.2	147.8	147.5	147.5
172.5°	143.9	144.4	143.9	143.6
175°	141.1	141.4	141.1	140.8
177.5°	139.1	139.4	138.9	138.9
180°	138.3	138.3	138.3	138.3



TEST NUMBER: P832238

CATALOG NUMBER: S123RDIP-S560D365U927-4F0-1E-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	11.58	12.52	12.41	13.36	14.41	16.24	17.18	17.08	18.02	19.07
	3H	12.81	13.65	13.66	14.50	15.58	17.75	18.59	18.60	19.44	20.52
	4H	13.20	13.99	14.06	14.85	15.93	18.25	19.04	19.11	19.90	20.98
	6H	13.49	14.21	14.36	15.08	16.18	18.56	19.29	19.44	20.16	21.26
	8H	13.58	14.26	14.46	15.15	16.25	18.65	19.34	19.53	20.22	21.32
	12H	13.63	14.29	14.52	15.17	16.29	18.68	19.34	19.57	20.22	21.34
4H	2H	12.32	13.10	13.18	13.96	15.05	16.25	17.04	17.12	17.90	18.99
	3H	13.70	14.35	14.57	15.24	16.34	17.92	18.57	18.80	19.47	20.57
	4H	14.16	14.75	15.04	15.64	16.77	18.53	19.12	19.42	20.01	21.14
	6H	14.53	15.04	15.43	15.95	17.09	18.97	19.49	19.88	20.40	21.53
	8H	14.66	15.13	15.56	16.04	17.18	19.11	19.58	20.01	20.49	21.64
	12H	14.74	15.17	15.66	16.09	17.24	19.17	19.60	20.10	20.53	21.68
8H	4H	14.48	14.95	15.38	15.86	17.00	18.50	18.98	19.41	19.89	21.03
	6H	14.94	15.34	15.88	16.29	17.43	19.00	19.40	19.94	20.35	21.49
	8H	15.14	15.49	16.08	16.43	17.59	19.19	19.54	20.13	20.48	21.64
	12H	15.28	15.59	16.22	16.52	17.73	19.31	19.62	20.25	20.55	21.76
12H	4H	14.49	14.92	15.42	15.85	17.00	18.46	18.89	19.38	19.82	20.96
	6H	15.00	15.35	15.94	16.29	17.45	18.98	19.33	19.92	20.27	21.43
	8H	15.23	15.53	16.17	16.47	17.68	19.18	19.48	20.12	20.42	21.63