

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: P832302

Luminaire Tested: S123RDIP-S560D805U950-4F0-1E-UDD-G

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832302  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S560D805U950-4F0-1E-UDD-G  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 560 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 805 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: -

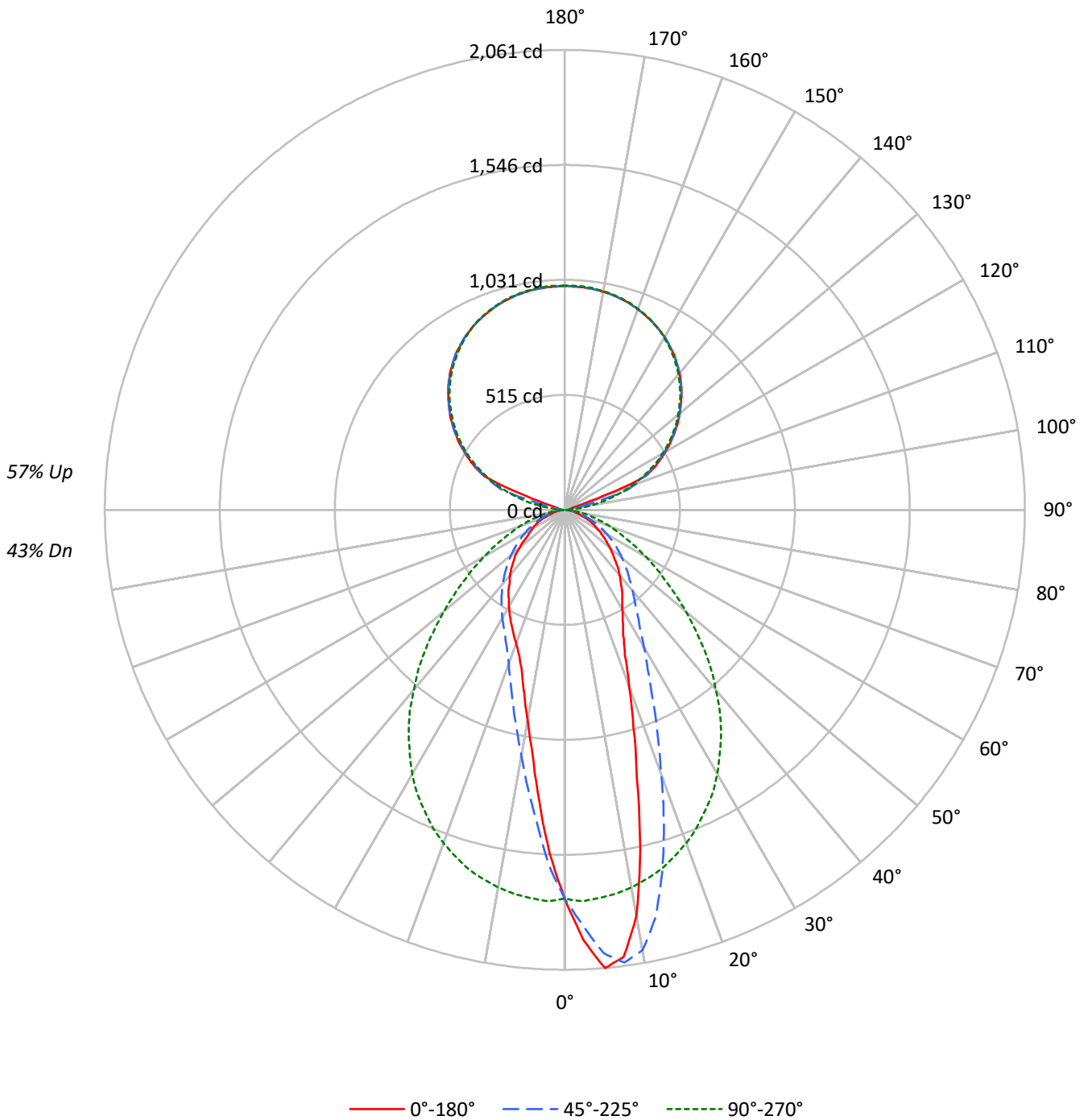
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5372.4 lumens  
Efficiency: N/A  
Efficacy: 133.6 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): 40.2  
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	0
RCR																		
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43
1	97	93	89	86	88	85	82	79	71	68	67	57	56	55	45	44	43	38
2	89	82	76	71	81	75	70	66	63	59	56	51	49	47	40	39	38	33
3	82	73	66	60	74	67	61	56	56	52	48	46	43	40	37	35	33	29
4	75	65	57	52	68	60	53	48	50	46	42	41	38	35	33	31	29	25
5	69	58	51	45	63	54	47	42	45	40	37	38	34	31	30	28	26	23
6	64	53	45	39	59	49	42	37	41	36	32	34	31	28	28	25	23	20
7	59	48	40	35	54	44	38	33	38	33	29	32	28	25	26	23	21	18
8	55	44	36	31	51	41	34	30	35	30	26	29	25	23	24	21	19	17
9	52	40	33	28	47	37	31	27	32	27	24	27	23	21	22	20	18	16
10	48	37	30	25	44	34	28	24	30	25	22	25	22	19	21	18	16	14

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

	0°	45°	90°	135°	180°
0°	18755	18755	18755	18755	18755
5°	22269	21558	18872	15257	14164
10°	20176	21898	18779	12223	10486
15°	13892	18775	18580	9990	8295
20°	9664	14455	18207	8424	7291
25°	7365	11017	17664	7487	6720
30°	6411	8809	16986	6953	6224
35°	5886	7430	16023	6501	5773
40°	5370	6635	14765	6058	5361
45°	4850	6068	13408	5638	4947
50°	4402	5598	11807	5228	4438
55°	3982	5142	10269	4827	3808
60°	3567	4676	8919	4383	3599
65°	3293	4149	7679	3940	3403
70°	2675	3585	6700	3563	2766
75°	2346	2853	5673	2957	2437
80°	2126	2411	4649	2479	2300
85°	1939	2112	3532	2248	2112

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 14148 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.8	3.0
10°-20°	367.5	6.8
20°-30°	421.6	7.8
30°-40°	415.6	7.7
40°-50°	366.5	6.8
50°-60°	282.0	5.2
60°-70°	185.4	3.5
70°-80°	90.0	1.7
80°-90°	24.7	0.5
90°-100°	35.4	0.7
100°-110°	171.1	3.2
110°-120°	419.4	7.8
120°-130°	532.4	9.9
130°-140°	568.8	10.6
140°-150°	531.9	9.9
150°-160°	429.0	8.0
160°-170°	276.9	5.2
170°-180°	95.4	1.8
0°-30°	947.9	17.6
0°-40°	1363.5	25.4
0°-60°	2012.0	37.5
0°-90°	2312.1	43.0
90°-120°	625.9	11.6
90°-150°	2259.0	42.0
90°-180°	3060.0	57.0
0°-180°	5372.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1742	1742	1742	1742	1742	
5°	2061	1995	1747	1412	1311	188
15°	1247	1685	1667	896	744	352
25°	620	928	1487	630	566	293
35°	448	565	1219	495	439	279
45°	319	399	881	370	325	247
55°	212	274	547	257	203	190
65°	129	163	302	155	134	127
75°	56	69	136	71	59	61
85°	16	17	29	18	17	17
90°	22	18	1	18	22	11
95°	28	23	46	23	28	24
105°	33	163	222	163	33	68
115°	438	428	417	428	438	412
125°	600	597	588	597	600	536
135°	739	739	732	739	739	570
145°	852	851	844	851	852	532
155°	929	929	930	929	929	428
165°	978	978	981	978	978	276
175°	1000	1001	1004	1001	1000	95
180°	1004	1004	1004	1004	1004	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4
2.5°	1930.9	1924.9	1918.8	1917.0	1915.2	1909.5	1903.8	1890.9	1878.1	1864.9	1851.7
5°	2061.0	2061.7	2062.4	2060.6	2058.8	2051.3	2043.8	2028.1	2012.4	1995.2	1978.1
7.5°	2021.0	2032.4	2043.8	2046.0	2048.1	2053.8	2059.5	2056.0	2052.4	2046.0	2039.5
10°	1845.9	1845.2	1844.5	1857.4	1870.2	1908.4	1946.7	1966.3	1986.0	2003.5	2021.0
12.5°	1560.2	1561.3	1562.3	1604.5	1646.6	1682.7	1718.8	1768.8	1818.8	1872.7	1926.7
15°	1246.6	1264.1	1281.6	1319.1	1356.6	1410.9	1465.2	1532.3	1599.5	1684.8	1770.2
17.5°	1023.7	1031.2	1038.7	1074.8	1110.8	1162.3	1213.7	1289.8	1365.9	1475.9	1585.9
20°	843.7	850.5	857.2	883.3	909.4	958.7	1008.0	1080.5	1153.0	1261.9	1370.9
22.5°	704.4	717.6	730.8	748.3	765.8	801.5	837.2	911.2	985.1	1084.4	1183.7
25°	620.1	626.1	632.2	647.2	662.2	696.5	730.8	779.7	828.7	927.6	1026.6
27.5°	562.9	564.7	566.5	577.6	588.6	610.8	632.9	678.3	723.7	805.1	886.5
30°	515.8	519.0	522.2	530.8	539.4	555.4	571.5	603.6	635.8	708.7	781.5
32.5°	479.3	481.1	482.9	490.1	497.2	509.0	520.8	546.1	571.5	627.2	682.9
35°	447.9	448.3	448.6	454.0	459.3	470.8	482.2	503.3	524.3	565.4	606.5
37.5°	412.2	414.7	417.2	421.1	425.1	435.1	445.1	462.2	479.3	513.3	547.2
40°	382.2	384.3	386.5	391.1	395.8	403.6	411.5	427.2	442.9	472.2	501.5
42.5°	352.2	353.6	355.0	359.7	364.3	374.0	383.6	396.1	408.6	432.9	457.2
45°	318.6	322.2	325.8	330.8	335.8	344.0	352.2	365.0	377.9	398.6	419.3
47.5°	290.7	292.5	294.3	298.6	302.9	312.9	322.9	334.3	345.8	365.0	384.3
50°	262.9	263.6	264.3	268.2	272.2	281.1	290.0	303.3	316.5	334.3	352.2
52.5°	236.5	238.2	240.0	244.0	247.9	254.0	260.0	273.6	287.2	304.7	322.2
55°	212.2	213.2	214.3	217.2	220.0	227.2	234.3	246.1	257.9	274.0	290.0
57.5°	189.3	190.7	192.2	194.3	196.5	202.9	209.3	219.7	230.0	246.1	262.2
60°	165.7	167.5	169.3	171.8	174.3	179.3	184.3	193.6	202.9	217.2	231.5
62.5°	148.6	148.9	149.3	151.4	153.6	157.2	160.7	168.2	175.7	190.0	204.3
65°	129.3	130.4	131.4	132.5	133.6	136.4	139.3	145.7	152.2	162.9	173.6
67.5°	109.3	110.4	111.4	113.2	115.0	117.5	120.0	124.3	128.6	138.6	148.6
70°	85.0	85.0	85.0	87.9	90.7	95.0	99.3	102.5	105.7	113.9	122.2
72.5°	69.3	69.7	70.0	70.4	70.7	73.2	75.7	81.1	86.4	91.4	96.4
75°	56.4	56.8	57.1	57.5	57.9	58.6	59.3	61.1	62.9	68.6	74.3
77.5°	45.0	45.4	45.7	46.1	46.4	47.1	47.9	48.6	49.3	51.4	53.6
80°	34.3	34.6	35.0	35.4	35.7	36.1	36.4	37.1	37.9	38.9	40.0
82.5°	25.0	25.0	25.0	25.0	25.0	25.7	26.4	26.4	26.4	27.1	27.9
85°	15.7	15.7	15.7	16.1	16.4	16.4	16.4	16.8	17.1	17.1	17.1
87.5°	7.1	6.8	6.4	6.8	7.1	7.1	7.1	7.5	7.9	7.9	7.9
90°	22.4	22.0	21.7	21.4	21.0	20.6	19.9	19.2	18.6	17.9	15.7
92.5°	25.4	25.2	25.0	24.9	24.7	24.0	22.9	21.7	20.6	19.4	17.9
95°	28.3	28.3	28.3	28.3	28.3	27.8	26.6	25.4	24.3	23.1	21.3
97.5°	30.6	30.4	30.2	30.1	29.9	29.2	27.8	26.5	25.2	23.9	32.3
100°	31.3	31.2	31.0	30.8	30.7	29.9	28.6	27.3	25.9	24.6	50.5
102.5°	32.1	31.7	31.4	31.1	30.7	33.3	38.8	44.3	49.7	55.2	84.0
105°	32.8	32.5	32.2	31.8	31.5	46.0	75.3	104.7	134.0	163.3	178.3
107.5°	77.6	99.3	121.0	142.7	164.4	188.0	213.6	239.1	264.6	290.1	287.6
110°	205.1	228.8	252.5	276.2	299.9	314.5	320.0	325.4	330.9	336.4	334.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	388.6	388.9	389.2	389.6	389.9	389.3	387.8	386.3	384.8	383.4	381.5
115°	438.5	437.9	437.2	436.6	435.9	434.7	433.1	431.4	429.8	428.1	426.6
117.5°	478.8	478.7	478.5	478.3	478.2	477.4	476.1	474.8	473.4	472.1	471.3
120°	520.6	520.6	520.6	520.6	520.6	519.9	518.6	517.3	515.9	514.6	514.1
122.5°	561.6	561.4	561.3	561.1	560.9	560.5	559.6	558.8	558.0	557.1	556.5
125°	599.6	599.3	599.0	598.7	598.3	598.0	597.7	597.3	597.0	596.7	596.0
127.5°	636.9	637.3	637.6	637.9	638.3	638.2	637.7	637.2	636.7	636.2	635.4
130°	672.7	673.1	673.4	673.7	674.1	673.9	673.2	672.6	671.9	671.2	670.6
132.5°	705.6	706.1	706.6	707.0	707.5	707.5	706.8	706.1	705.5	704.8	704.3
135°	739.1	739.6	740.1	740.6	741.1	741.1	740.6	740.1	739.6	739.1	738.5
137.5°	771.2	771.5	771.9	772.2	772.5	772.3	771.4	770.6	769.8	769.0	768.6
140°	799.5	799.9	800.2	800.5	800.9	800.7	800.0	799.4	798.7	798.0	797.5
142.5°	825.6	826.1	826.6	827.1	827.6	827.6	827.1	826.6	826.1	825.6	825.1
145°	852.5	852.5	852.5	852.5	852.5	852.3	852.0	851.7	851.3	851.0	850.7
147.5°	871.9	872.7	873.5	874.4	875.2	875.4	875.1	874.8	874.4	874.1	873.8
150°	894.3	894.7	895.2	895.7	896.2	896.3	896.0	895.7	895.3	895.0	894.7
152.5°	912.2	913.0	913.8	914.6	915.5	915.6	914.9	914.2	913.6	912.9	912.7
155°	928.6	929.6	930.5	931.5	932.5	932.6	931.8	931.0	930.1	929.3	929.1
157.5°	942.7	944.1	945.4	946.7	948.0	948.2	947.2	946.2	945.2	944.2	944.4
160°	956.2	957.3	958.5	959.6	960.8	960.9	959.9	958.9	957.9	956.9	957.1
162.5°	968.8	969.8	970.8	971.8	972.8	972.7	971.6	970.4	969.3	968.1	968.3
165°	978.5	979.7	980.9	982.0	983.2	983.1	981.8	980.4	979.1	977.8	978.0
167.5°	986.0	987.3	988.6	990.0	991.3	991.3	990.0	988.6	987.3	986.0	986.0
170°	992.7	994.0	995.4	996.7	998.0	998.0	996.7	995.4	994.0	992.7	992.7
172.5°	996.4	997.9	999.4	1000.9	1002.4	1002.5	1001.2	999.8	998.5	997.2	997.0
175°	1000.2	1001.5	1002.8	1004.1	1005.5	1005.5	1004.4	1003.2	1002.1	1000.9	1000.7
177.5°	1000.9	1002.6	1004.2	1005.9	1007.5	1007.7	1006.4	1005.0	1003.7	1002.4	1002.2
180°	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4
2.5°	1849.9	1848.1	1830.9	1813.8	1797.0	1780.2	1767.7	1755.2	1734.1	1713.1	1699.8
5°	1964.5	1950.9	1923.8	1896.7	1855.9	1815.2	1780.9	1746.6	1703.1	1659.5	1623.1
7.5°	2028.5	2017.4	1984.5	1951.7	1897.7	1843.8	1790.2	1736.6	1672.3	1608.1	1553.0
10°	2030.2	2039.5	2012.4	1985.2	1924.5	1863.8	1790.9	1718.1	1631.6	1545.2	1474.1
12.5°	1966.7	2006.7	2001.0	1995.2	1933.4	1871.7	1783.1	1694.5	1588.4	1482.3	1393.4
15°	1847.7	1925.2	1948.1	1971.0	1919.9	1868.8	1768.1	1667.3	1542.7	1418.0	1315.9
17.5°	1694.5	1803.1	1863.4	1923.8	1886.7	1849.5	1739.1	1628.8	1488.4	1348.0	1236.9
20°	1513.0	1655.2	1749.9	1844.5	1830.9	1817.4	1703.4	1589.5	1438.0	1286.6	1166.2
22.5°	1333.7	1483.8	1614.5	1745.2	1759.1	1773.1	1658.1	1543.0	1377.3	1211.6	1089.1
25°	1179.1	1331.6	1487.3	1643.1	1674.5	1705.9	1596.6	1487.3	1315.5	1143.7	1021.9
27.5°	1031.6	1176.6	1348.0	1519.5	1576.6	1633.8	1533.8	1433.7	1254.8	1075.8	954.4
30°	911.2	1040.8	1215.9	1390.9	1470.5	1550.2	1458.4	1366.6	1189.1	1011.6	892.6
32.5°	799.0	915.1	1090.8	1266.6	1359.1	1451.6	1372.3	1293.0	1122.3	951.5	834.0
35°	710.4	814.4	978.3	1142.3	1245.9	1349.4	1284.4	1219.4	1052.6	885.8	774.7
37.5°	634.4	721.5	875.5	1029.4	1139.4	1249.4	1195.1	1140.9	984.0	827.2	722.2
40°	571.5	641.5	784.7	928.0	1035.8	1143.7	1097.3	1050.8	910.5	770.1	671.9
42.5°	517.6	577.9	706.5	835.1	934.0	1033.0	1002.3	971.5	844.4	717.2	626.1
45°	470.1	520.8	634.0	747.2	838.3	929.4	905.1	880.8	771.2	661.5	577.9
47.5°	427.9	471.5	572.6	673.7	755.4	837.2	814.7	792.2	701.5	610.8	534.7
50°	389.3	426.5	510.8	595.1	668.7	742.2	723.7	705.1	630.1	555.1	489.3
52.5°	352.9	383.6	459.3	535.1	594.4	653.7	639.4	625.1	567.2	509.3	449.7
55°	318.3	346.5	410.4	474.3	525.1	575.8	561.5	547.2	502.2	457.2	404.7
57.5°	286.8	311.5	363.3	415.1	455.4	495.8	489.0	482.2	444.7	407.2	364.0
60°	253.6	275.7	320.4	365.0	397.5	430.1	422.2	414.3	387.5	360.8	323.6
62.5°	224.0	243.6	279.3	315.0	341.5	367.9	362.2	356.5	336.1	315.8	285.0
65°	192.9	212.2	241.1	270.0	290.7	311.5	306.5	301.5	286.1	270.7	246.1
67.5°	164.7	180.7	205.7	230.7	244.7	258.6	255.7	252.9	241.1	229.3	210.0
70°	136.1	150.0	170.7	191.5	201.1	210.7	211.8	212.9	202.2	191.5	177.2
72.5°	107.5	118.6	137.9	157.2	164.7	172.2	171.8	171.4	165.0	158.6	145.7
75°	82.5	90.7	105.7	120.7	127.2	133.6	135.0	136.4	130.4	124.3	117.2
77.5°	59.3	65.0	76.4	87.9	95.0	102.2	102.9	103.6	100.7	97.9	91.1
80°	41.8	43.6	50.7	57.9	65.4	72.9	73.9	75.0	72.2	69.3	65.0
82.5°	28.9	30.0	32.5	35.0	41.1	47.1	48.6	50.0	48.6	47.1	42.5
85°	17.5	17.9	18.9	20.0	22.9	25.7	27.1	28.6	27.9	27.1	24.6
87.5°	7.9	7.9	8.2	8.6	9.3	10.0	11.8	13.6	12.5	11.4	10.4
90°	13.6	11.4	9.3	7.4	5.7	4.1	2.4	0.7	2.4	4.1	5.7
92.5°	16.4	14.9	13.4	13.2	14.2	15.2	16.2	17.2	16.2	15.2	14.2
95°	19.5	17.7	15.8	18.3	25.1	31.9	38.7	45.5	38.7	31.9	25.1
97.5°	40.8	49.2	57.7	64.2	68.9	73.5	78.1	82.8	78.1	73.5	68.9
100°	76.3	102.2	128.0	139.3	136.0	132.7	129.4	126.0	129.4	132.7	136.0
102.5°	112.9	141.7	170.5	183.9	181.7	179.6	177.4	175.3	177.4	179.6	181.7
105°	193.2	208.1	223.0	229.6	227.7	225.9	224.1	222.3	224.1	225.9	227.7
107.5°	285.2	282.7	280.2	278.2	276.7	275.2	273.7	272.2	273.7	275.2	276.7
110°	332.7	330.9	329.1	327.5	326.2	324.9	323.5	322.2	323.5	324.9	326.2





TEST NUMBER: P832302

CATALOG NUMBER: S123RDIP-S560D805U950-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	379.7	377.9	376.1	374.6	373.4	372.3	371.1	369.9	371.1	372.3	373.4
115°	425.1	423.6	422.1	420.9	419.9	418.9	417.9	416.9	417.9	418.9	419.9
117.5°	470.5	469.6	468.8	467.8	466.6	465.5	464.3	463.2	464.3	465.5	466.6
120°	513.6	513.1	512.6	511.6	510.1	508.7	507.2	505.7	507.2	508.7	510.1
122.5°	555.8	555.1	554.5	553.6	552.4	551.3	550.1	548.9	550.1	551.3	552.4
125°	595.3	594.7	594.0	593.0	591.7	590.4	589.0	587.7	589.0	590.4	591.7
127.5°	634.5	633.7	632.9	631.8	630.5	629.2	627.8	626.5	627.8	629.2	630.5
130°	669.9	669.3	668.6	667.6	666.3	665.0	663.6	662.3	663.6	665.0	666.3
132.5°	703.8	703.3	702.8	701.9	700.6	699.3	697.9	696.6	697.9	699.3	700.6
135°	737.8	737.1	736.5	735.6	734.6	733.7	732.7	731.7	732.7	733.7	734.6
137.5°	768.3	768.0	767.6	766.8	765.5	764.1	762.8	761.5	762.8	764.1	765.5
140°	797.0	796.5	796.1	795.3	794.3	793.3	792.3	791.3	792.3	793.3	794.3
142.5°	824.6	824.1	823.6	822.9	821.9	820.9	819.9	818.9	819.9	820.9	821.9
145°	850.3	850.0	849.7	848.9	847.8	846.6	845.4	844.3	845.4	846.6	847.8
147.5°	873.5	873.1	872.8	872.2	871.4	870.6	869.7	868.9	869.7	870.6	871.4
150°	894.3	894.0	893.7	893.3	892.8	892.3	891.8	891.3	891.8	892.3	892.8
152.5°	912.6	912.4	912.2	912.1	911.9	911.7	911.6	911.4	911.6	911.7	911.9
155°	929.0	928.8	928.6	928.7	929.1	929.4	929.7	930.1	929.7	929.4	929.1
157.5°	944.6	944.7	944.9	945.0	945.0	945.0	945.0	945.0	945.0	945.0	945.0
160°	957.2	957.4	957.6	957.7	957.9	958.1	958.2	958.4	958.2	958.1	957.9
162.5°	968.4	968.6	968.8	969.1	969.6	970.1	970.6	971.1	970.6	970.1	969.6
165°	978.1	978.3	978.4	978.8	979.3	979.8	980.3	980.8	980.3	979.8	979.3
167.5°	986.0	986.0	986.0	986.3	987.0	987.6	988.3	989.0	988.3	987.6	987.0
170°	992.7	992.7	992.7	993.0	993.7	994.4	995.0	995.7	995.0	994.4	993.7
172.5°	996.8	996.7	996.5	996.8	997.7	998.5	999.3	1000.2	999.3	998.5	997.7
175°	1000.6	1000.4	1000.2	1000.6	1001.4	1002.2	1003.1	1003.9	1003.1	1002.2	1001.4
177.5°	1002.1	1001.9	1001.7	1002.1	1002.9	1003.7	1004.6	1005.4	1004.6	1003.7	1002.9
180°	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9



TEST NUMBER: P832302

CATALOG NUMBER: S123RDIP-S560D805U950-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4	1742.4
2.5°	1686.6	1666.3	1645.9	1631.3	1616.6	1598.4	1580.2	1579.5	1578.8	1565.2	1551.6
5°	1586.6	1551.3	1515.9	1481.2	1446.6	1412.0	1377.3	1369.5	1361.6	1349.8	1338.0
7.5°	1498.0	1441.6	1385.2	1340.9	1296.6	1261.9	1227.3	1203.7	1180.1	1161.9	1143.7
10°	1403.0	1333.0	1263.0	1209.4	1155.9	1118.3	1080.8	1053.7	1026.6	1013.7	1000.8
12.5°	1304.4	1228.4	1152.3	1099.8	1047.3	1002.3	957.3	932.6	908.0	890.1	872.2
15°	1213.7	1131.9	1050.1	994.4	938.7	896.5	854.4	829.7	805.1	787.2	769.4
17.5°	1125.8	1043.3	960.8	904.4	848.0	809.7	771.5	747.6	723.7	712.6	701.5
20°	1045.8	962.6	879.4	826.2	773.0	735.4	697.9	685.1	672.2	661.9	651.5
22.5°	966.5	886.5	806.5	755.4	704.4	677.2	650.1	639.7	629.4	621.5	613.6
25°	900.1	820.5	740.8	696.2	651.5	630.4	609.4	602.6	595.8	587.9	580.1
27.5°	833.0	757.2	681.5	645.8	610.1	592.9	575.8	567.2	558.6	552.2	545.8
30°	773.7	703.7	633.6	604.0	574.4	559.4	544.4	535.1	525.8	519.7	513.6
32.5°	716.5	654.4	592.2	566.9	541.5	526.8	512.2	503.3	494.3	487.2	480.1
35°	663.7	609.7	555.8	532.6	509.3	494.7	480.1	471.1	462.2	455.1	447.9
37.5°	617.2	568.3	519.3	497.6	475.8	462.9	450.1	440.8	431.5	424.0	416.5
40°	573.6	530.4	487.2	466.1	445.1	431.1	417.2	409.0	400.8	394.0	387.2
42.5°	535.1	495.4	455.8	435.1	414.3	401.1	387.9	378.3	368.6	364.7	360.8
45°	494.3	459.3	424.3	404.3	384.3	370.4	356.5	348.3	340.0	336.5	332.9
47.5°	458.6	426.1	393.6	374.0	354.3	341.8	329.3	322.9	316.5	311.5	306.5
50°	423.6	392.2	360.8	341.8	322.9	312.2	301.5	293.6	285.7	282.2	278.6
52.5°	390.0	361.5	332.9	313.6	294.3	284.0	273.6	266.8	260.0	252.5	245.0
55°	352.2	327.2	302.2	285.0	267.9	257.2	246.5	238.6	230.7	222.9	215.0
57.5°	320.8	296.1	271.5	256.1	240.7	230.4	220.0	211.5	202.9	196.5	190.0
60°	286.5	265.0	243.6	228.6	213.6	203.6	193.6	185.4	177.2	173.9	170.7
62.5°	254.3	234.3	214.3	201.1	187.9	178.2	168.6	163.2	157.9	155.7	153.6
65°	221.5	204.3	187.2	175.0	162.9	154.7	146.4	143.9	141.4	139.7	137.9
67.5°	190.7	176.1	161.4	150.7	140.0	134.3	128.6	125.7	122.9	120.7	118.6
70°	162.9	150.0	137.2	127.9	118.6	113.2	107.9	105.4	102.9	98.9	95.0
72.5°	132.9	122.9	112.9	105.7	98.6	93.9	89.3	84.3	79.3	75.7	72.2
75°	110.0	100.0	90.0	83.2	76.4	71.1	65.7	63.9	62.2	61.1	60.0
77.5°	84.3	75.7	67.2	61.8	56.4	53.9	51.4	50.4	49.3	48.9	48.6
80°	60.7	53.6	46.4	43.6	40.7	40.0	39.3	38.6	37.9	37.5	37.1
82.5°	37.9	34.3	30.7	30.0	29.3	28.9	28.6	28.2	27.9	27.5	27.1
85°	22.1	20.7	19.3	18.9	18.6	18.2	17.9	17.9	17.9	17.9	17.9
87.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	8.9	8.6
90°	7.4	9.3	11.4	13.6	15.7	17.9	18.6	19.2	19.9	20.6	21.0
92.5°	13.2	13.4	14.9	16.4	17.9	19.4	20.6	21.7	22.9	24.0	24.7
95°	18.3	15.8	17.7	19.5	21.3	23.1	24.3	25.4	26.6	27.8	28.3
97.5°	64.2	57.7	49.2	40.8	32.3	23.9	25.2	26.5	27.8	29.2	29.9
100°	139.3	128.0	102.2	76.3	50.5	24.6	25.9	27.3	28.6	29.9	30.7
102.5°	183.9	170.5	141.7	112.9	84.0	55.2	49.7	44.3	38.8	33.3	30.7
105°	229.6	223.0	208.1	193.2	178.3	163.3	134.0	104.7	75.3	46.0	31.5
107.5°	278.2	280.2	282.7	285.2	287.6	290.1	264.6	239.1	213.6	188.0	164.4
110°	327.5	329.1	330.9	332.7	334.5	336.4	330.9	325.4	320.0	314.5	299.9



TEST NUMBER: P832302

CATALOG NUMBER: S123RDIP-S560D805U950-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	374.6	376.1	377.9	379.7	381.5	383.4	384.8	386.3	387.8	389.3	389.9
115°	420.9	422.1	423.6	425.1	426.6	428.1	429.8	431.4	433.1	434.7	435.9
117.5°	467.8	468.8	469.6	470.5	471.3	472.1	473.4	474.8	476.1	477.4	478.2
120°	511.6	512.6	513.1	513.6	514.1	514.6	515.9	517.3	518.6	519.9	520.6
122.5°	553.6	554.5	555.1	555.8	556.5	557.1	558.0	558.8	559.6	560.5	560.9
125°	593.0	594.0	594.7	595.3	596.0	596.7	597.0	597.3	597.7	598.0	598.3
127.5°	631.8	632.9	633.7	634.5	635.4	636.2	636.7	637.2	637.7	638.2	638.3
130°	667.6	668.6	669.3	669.9	670.6	671.2	671.9	672.6	673.2	673.9	674.1
132.5°	701.9	702.8	703.3	703.8	704.3	704.8	705.5	706.1	706.8	707.5	707.5
135°	735.6	736.5	737.1	737.8	738.5	739.1	739.6	740.1	740.6	741.1	741.1
137.5°	766.8	767.6	768.0	768.3	768.6	769.0	769.8	770.6	771.4	772.3	772.5
140°	795.3	796.1	796.5	797.0	797.5	798.0	798.7	799.4	800.0	800.7	800.9
142.5°	822.9	823.6	824.1	824.6	825.1	825.6	826.1	826.6	827.1	827.6	827.6
145°	848.9	849.7	850.0	850.3	850.7	851.0	851.3	851.7	852.0	852.3	852.5
147.5°	872.2	872.8	873.1	873.5	873.8	874.1	874.4	874.8	875.1	875.4	875.2
150°	893.3	893.7	894.0	894.3	894.7	895.0	895.3	895.7	896.0	896.3	896.2
152.5°	912.1	912.2	912.4	912.6	912.7	912.9	913.6	914.2	914.9	915.6	915.5
155°	928.7	928.6	928.8	929.0	929.1	929.3	930.1	931.0	931.8	932.6	932.5
157.5°	945.0	944.9	944.7	944.6	944.4	944.2	945.2	946.2	947.2	948.2	948.0
160°	957.7	957.6	957.4	957.2	957.1	956.9	957.9	958.9	959.9	960.9	960.8
162.5°	969.1	968.8	968.6	968.4	968.3	968.1	969.3	970.4	971.6	972.7	972.8
165°	978.8	978.4	978.3	978.1	978.0	977.8	979.1	980.4	981.8	983.1	983.2
167.5°	986.3	986.0	986.0	986.0	986.0	986.0	987.3	988.6	990.0	991.3	991.3
170°	993.0	992.7	992.7	992.7	992.7	992.7	994.0	995.4	996.7	998.0	998.0
172.5°	996.8	996.5	996.7	996.8	997.0	997.2	998.5	999.8	1001.2	1002.5	1002.4
175°	1000.6	1000.2	1000.4	1000.6	1000.7	1000.9	1002.1	1003.2	1004.4	1005.5	1005.5
177.5°	1002.1	1001.7	1001.9	1002.1	1002.2	1002.4	1003.7	1005.0	1006.4	1007.7	1007.5
180°	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9	1003.9



TEST NUMBER: P832302

CATALOG NUMBER: S123RDIP-S560D805U950-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1742.4	1742.4	1742.4	1742.4
2.5°	1548.0	1544.5	1543.0	1541.6
5°	1326.9	1315.9	1313.4	1310.9
7.5°	1139.1	1134.4	1119.1	1103.7
10°	986.5	972.3	965.8	959.4
12.5°	859.0	845.8	843.7	841.5
15°	760.1	750.8	747.6	744.4
17.5°	695.1	688.7	684.7	680.8
20°	646.9	642.2	639.4	636.5
22.5°	610.1	606.5	604.4	602.2
25°	574.7	569.4	567.6	565.8
27.5°	541.1	536.5	534.7	532.9
30°	509.7	505.8	503.3	500.8
32.5°	475.4	470.8	469.3	467.9
35°	445.1	442.2	440.8	439.3
37.5°	412.9	409.3	407.2	405.0
40°	385.4	383.6	382.5	381.5
42.5°	357.5	354.3	354.0	353.6
45°	329.7	326.5	325.8	325.0
47.5°	303.6	300.8	300.4	300.0
50°	274.7	270.7	267.9	265.0
52.5°	241.5	237.9	235.4	232.9
55°	211.1	207.2	205.0	202.9
57.5°	188.2	186.5	185.4	184.3
60°	169.7	168.6	167.9	167.2
62.5°	152.5	151.4	151.4	151.4
65°	136.8	135.7	134.7	133.6
67.5°	116.4	114.3	113.9	113.6
70°	91.8	88.6	88.2	87.9
72.5°	71.8	71.4	70.7	70.0
75°	59.3	58.6	58.6	58.6
77.5°	47.9	47.1	47.1	47.1
80°	36.8	36.4	36.8	37.1
82.5°	27.1	27.1	26.8	26.4
85°	17.5	17.1	17.1	17.1
87.5°	8.6	8.6	8.6	8.6
90°	21.4	21.7	22.0	22.4
92.5°	24.9	25.0	25.2	25.4
95°	28.3	28.3	28.3	28.3
97.5°	30.1	30.2	30.4	30.6
100°	30.8	31.0	31.2	31.3
102.5°	31.1	31.4	31.7	32.1
105°	31.8	32.2	32.5	32.8
107.5°	142.7	121.0	99.3	77.6
110°	276.2	252.5	228.8	205.1



TEST NUMBER: P832302

CATALOG NUMBER: S123RDIP-S560D805U950-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	389.6	389.2	388.9	388.6
115°	436.6	437.2	437.9	438.5
117.5°	478.3	478.5	478.7	478.8
120°	520.6	520.6	520.6	520.6
122.5°	561.1	561.3	561.4	561.6
125°	598.7	599.0	599.3	599.6
127.5°	637.9	637.6	637.3	636.9
130°	673.7	673.4	673.1	672.7
132.5°	707.0	706.6	706.1	705.6
135°	740.6	740.1	739.6	739.1
137.5°	772.2	771.9	771.5	771.2
140°	800.5	800.2	799.9	799.5
142.5°	827.1	826.6	826.1	825.6
145°	852.5	852.5	852.5	852.5
147.5°	874.4	873.5	872.7	871.9
150°	895.7	895.2	894.7	894.3
152.5°	914.6	913.8	913.0	912.2
155°	931.5	930.5	929.6	928.6
157.5°	946.7	945.4	944.1	942.7
160°	959.6	958.5	957.3	956.2
162.5°	971.8	970.8	969.8	968.8
165°	982.0	980.9	979.7	978.5
167.5°	990.0	988.6	987.3	986.0
170°	996.7	995.4	994.0	992.7
172.5°	1000.9	999.4	997.9	996.4
175°	1004.1	1002.8	1001.5	1000.2
177.5°	1005.9	1004.2	1002.6	1000.9
180°	1003.9	1003.9	1003.9	1003.9



TEST NUMBER: P832302

CATALOG NUMBER: S123RDIP-S560D805U950-4F0-1E-UDD-G

**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	10.24	11.00	11.26	12.02	13.39	14.90	15.66	15.93	16.69	18.06
	3H	11.46	12.13	12.49	13.17	14.56	16.40	17.07	17.43	18.11	19.50
	4H	11.83	12.47	12.88	13.51	14.91	16.88	17.52	17.93	18.56	19.96
	6H	12.11	12.70	13.17	13.74	15.15	17.19	17.78	18.25	18.82	20.23
	8H	12.20	12.76	13.26	13.81	15.22	17.27	17.83	18.33	18.89	20.29
	12H	12.25	12.78	13.31	13.83	15.26	17.30	17.83	18.36	18.88	20.31
4H	2H	10.95	11.59	12.01	12.63	14.03	14.89	15.53	15.94	16.57	17.97
	3H	12.32	12.85	13.38	13.91	15.33	16.54	17.07	17.60	18.14	19.55
	4H	12.77	13.26	13.84	14.31	15.75	17.15	17.63	18.21	18.69	20.12
	6H	13.13	13.55	14.21	14.63	16.06	17.58	18.00	18.66	19.08	20.51
	8H	13.26	13.65	14.33	14.72	16.16	17.71	18.10	18.79	19.17	20.61
	12H	13.33	13.68	14.42	14.77	16.22	17.77	18.12	18.86	19.21	20.65
8H	4H	13.08	13.47	14.15	14.54	15.98	17.11	17.50	18.18	18.57	20.01
	6H	13.54	13.86	14.64	14.98	16.42	17.60	17.92	18.70	19.04	20.48
	8H	13.73	14.01	14.84	15.11	16.57	17.79	18.07	18.89	19.17	20.63
	12H	13.87	14.12	14.98	15.21	16.71	17.90	18.15	19.01	19.24	20.74
12H	4H	13.09	13.44	14.18	14.52	15.97	17.05	17.41	18.15	18.49	19.94
	6H	13.60	13.88	14.70	14.98	16.44	17.58	17.86	18.68	18.95	20.41
	8H	13.81	14.06	14.92	15.15	16.65	17.77	18.01	18.87	19.11	20.61