

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: P832359

Luminaire Tested: S123RDIP-S775D365U830-4F0-1E-UDD-G

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832359  
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-S775D365U830-4F0-1E-UDD-G  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: -

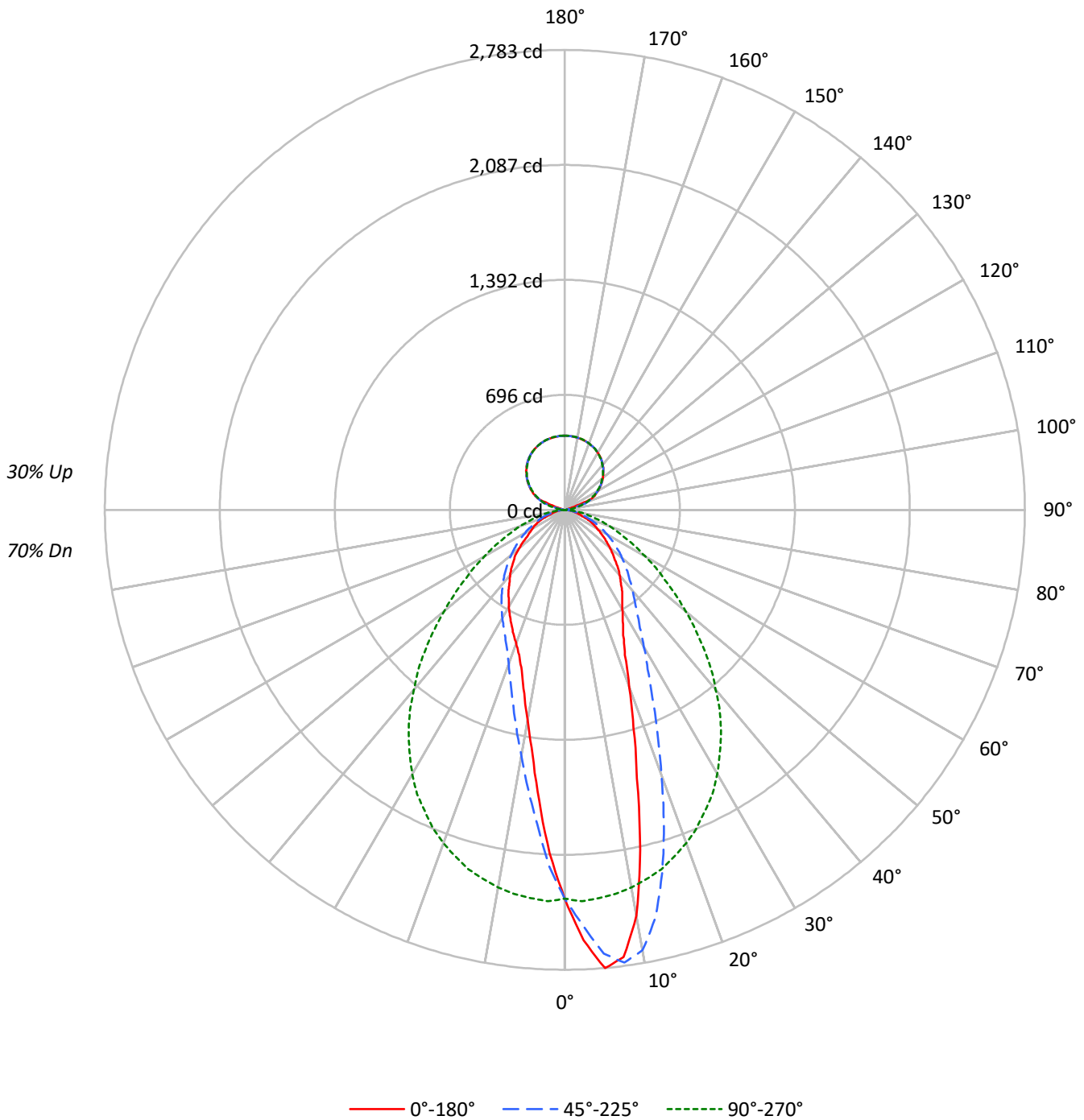
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4487.3 lumens  
Efficiency: N/A  
Efficacy: 125.0 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): 35.9  
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	50	30	10	0		
RCR																										
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70					70			
1	103	99	96	92	98	94	91	88	84	82	80	75	74	72	67	66	65	61					61			
2	95	88	82	77	90	84	79	74	75	71	68	68	65	62	61	58	56	53					53			
3	88	79	72	66	83	75	69	64	68	63	59	61	57	54	55	52	49	46					46			
4	81	71	63	57	76	67	61	55	61	56	51	55	51	48	50	47	44	41					41			
5	75	64	56	50	71	61	54	49	56	50	45	50	46	42	46	42	39	37					37			
6	70	58	50	45	66	56	48	43	51	45	41	46	42	38	42	38	35	33					33			
7	65	53	45	40	61	51	44	39	47	41	37	43	38	34	39	35	32	30					30			
8	61	49	41	36	58	47	40	35	43	37	33	40	35	31	36	32	29	27					27			
9	57	45	38	33	54	43	37	32	40	34	30	37	32	29	34	30	27	25					25			
10	54	42	35	30	51	40	34	29	37	32	28	34	30	26	32	28	25	23					23			

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

	0°	45°	90°	135°	180°
0°	25327	25327	25327	25327	25327
5°	30074	29115	25487	20603	19128
10°	27247	29572	25360	16508	14162
15°	18760	25356	25092	13493	11203
20°	13052	19521	24589	11377	9846
25°	9946	14878	23855	10112	9075
30°	8658	11895	22939	9389	8406
35°	7949	10034	21639	8779	7796
40°	7252	8961	19942	8181	7239
45°	6550	8194	18107	7614	6683
50°	5945	7561	15945	7060	5993
55°	5377	6944	13868	6518	5142
60°	4818	6314	12047	5920	4861
65°	4447	5603	10369	5321	4595
70°	3613	4843	9048	4812	3736
75°	3169	3851	7665	3993	3290
80°	2870	3261	6279	3347	3112
85°	2618	2865	4767	3038	2865

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 19106 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.5	4.8
10°-20°	496.3	11.1
20°-30°	569.4	12.7
30°-40°	561.3	12.5
40°-50°	495.0	11.0
50°-60°	380.8	8.5
60°-70°	250.3	5.6
70°-80°	121.6	2.7
80°-90°	31.6	0.7
90°-100°	15.8	0.4
100°-110°	76.4	1.7
110°-120°	187.3	4.2
120°-130°	237.8	5.3
130°-140°	254.0	5.7
140°-150°	237.5	5.3
150°-160°	191.6	4.3
160°-170°	123.6	2.8
170°-180°	42.6	0.9
0°-30°	1280.2	28.5
0°-40°	1841.5	41.0
0°-60°	2717.2	60.6
0°-90°	3120.7	69.5
90°-120°	279.5	6.2
90°-150°	1008.8	22.5
90°-180°	1367.0	30.5
0°-180°	4487.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2353	2353	2353	2353	2353	
5°	2783	2695	2359	1907	1770	254
15°	1684	2275	2252	1211	1005	475
25°	837	1253	2009	851	764	395
35°	605	764	1647	668	593	377
45°	430	538	1190	500	439	334
55°	286	370	739	347	274	257
65°	175	220	407	209	180	171
75°	76	93	184	96	79	82
85°	21	23	39	25	23	23
90°	10	8	0	8	10	6
95°	13	10	20	10	13	11
105°	15	73	99	73	15	31
115°	196	191	186	191	196	184
125°	268	266	262	266	268	239
135°	330	330	327	330	330	255
145°	381	380	377	380	381	238
155°	415	415	415	415	415	191
165°	437	437	438	437	437	123
175°	447	447	448	447	447	43
180°	448	448	448	448	448	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0
2.5°	2607.7	2599.5	2591.3	2588.9	2586.5	2578.8	2571.1	2553.7	2536.3	2518.5	2500.6
5°	2783.3	2784.3	2785.2	2782.8	2780.4	2770.3	2760.2	2738.9	2717.7	2694.6	2671.4
7.5°	2729.3	2744.7	2760.2	2763.1	2765.9	2773.7	2781.4	2776.6	2771.7	2763.1	2754.4
10°	2492.9	2492.0	2491.0	2508.4	2525.7	2577.3	2628.9	2655.5	2682.0	2705.6	2729.3
12.5°	2107.0	2108.5	2109.9	2166.8	2223.8	2272.5	2321.2	2388.7	2456.3	2529.1	2601.9
15°	1683.5	1707.1	1730.8	1781.4	1832.1	1905.4	1978.7	2069.4	2160.1	2275.4	2390.7
17.5°	1382.5	1392.6	1402.7	1451.5	1500.2	1569.7	1639.1	1741.9	1844.6	1993.2	2141.8
20°	1139.4	1148.5	1157.7	1192.9	1228.1	1294.7	1361.3	1459.2	1557.1	1704.2	1851.4
22.5°	951.2	969.1	986.9	1010.6	1034.2	1082.5	1130.7	1230.5	1330.4	1464.5	1598.6
25°	837.4	845.6	853.8	874.1	894.3	940.6	986.9	1053.0	1119.1	1252.7	1386.3
27.5°	760.2	762.6	765.0	780.0	795.0	824.9	854.8	916.0	977.3	1087.3	1197.3
30°	696.6	700.9	705.2	716.8	728.4	750.1	771.8	815.2	858.6	957.0	1055.4
32.5°	647.3	649.8	652.2	661.8	671.5	687.4	703.3	737.6	771.8	847.1	922.3
35°	604.9	605.4	605.9	613.1	620.3	635.8	651.2	679.7	708.1	763.6	819.1
37.5°	556.7	560.0	563.4	568.7	574.0	587.5	601.0	624.2	647.3	693.2	739.0
40°	516.1	519.0	521.9	528.2	534.5	545.1	555.7	576.9	598.1	637.7	677.3
42.5°	475.6	477.6	479.5	485.8	492.0	505.0	518.1	535.0	551.8	584.6	617.4
45°	430.3	435.1	439.9	446.7	453.4	464.5	475.6	493.0	510.4	538.3	566.3
47.5°	392.7	395.1	397.5	403.3	409.1	422.6	436.1	451.5	466.9	493.0	519.0
50°	355.0	356.0	357.0	362.3	367.6	379.6	391.7	409.5	427.4	451.5	475.6
52.5°	319.3	321.7	324.2	329.5	334.8	343.0	351.2	369.5	387.8	411.5	435.1
55°	286.5	288.0	289.4	293.3	297.1	306.8	316.4	332.4	348.3	370.0	391.7
57.5°	255.7	257.6	259.5	262.4	265.3	274.0	282.7	296.7	310.7	332.4	354.1
60°	223.8	226.2	228.6	232.0	235.4	242.2	248.9	261.4	274.0	293.3	312.6
62.5°	200.7	201.2	201.6	204.5	207.4	212.2	217.1	227.2	237.3	256.6	275.9
65°	174.6	176.1	177.5	179.0	180.4	184.3	188.1	196.8	205.5	220.0	234.4
67.5°	147.6	149.1	150.5	152.9	155.3	158.7	162.1	167.9	173.7	187.2	200.7
70°	114.8	114.8	114.8	118.7	122.5	128.3	134.1	138.4	142.8	153.9	165.0
72.5°	93.6	94.1	94.5	95.0	95.5	98.9	102.3	109.5	116.7	123.5	130.2
75°	76.2	76.7	77.2	77.7	78.1	79.1	80.1	82.5	84.9	92.6	100.3
77.5°	60.8	61.3	61.7	62.2	62.7	63.7	64.6	65.6	66.6	69.5	72.4
80°	46.3	46.8	47.3	47.8	48.2	48.7	49.2	50.2	51.1	52.6	54.0
82.5°	33.8	33.8	33.8	33.8	33.8	34.7	35.7	35.7	35.7	36.7	37.6
85°	21.2	21.2	21.2	21.7	22.2	22.2	22.2	22.7	23.2	23.2	23.2
87.5°	9.6	9.2	8.7	9.2	9.6	9.6	9.6	10.1	10.6	10.6	10.6
90°	10.0	9.8	9.7	9.5	9.4	9.2	8.9	8.6	8.3	8.0	7.0
92.5°	11.3	11.3	11.2	11.1	11.0	10.7	10.2	9.7	9.2	8.7	8.0
95°	12.7	12.7	12.7	12.7	12.7	12.4	11.9	11.4	10.8	10.3	9.5
97.5°	13.7	13.6	13.5	13.4	13.4	13.0	12.4	11.8	11.3	10.7	14.4
100°	14.0	13.9	13.8	13.8	13.7	13.4	12.8	12.2	11.6	11.0	22.5
102.5°	14.3	14.2	14.0	13.9	13.7	14.9	17.3	19.8	22.2	24.6	37.5
105°	14.7	14.5	14.4	14.2	14.1	20.5	33.6	46.7	59.8	72.9	79.6
107.5°	34.6	44.3	54.0	63.7	73.4	84.0	95.4	106.8	118.2	129.6	128.5
110°	91.6	102.2	112.8	123.3	133.9	140.4	142.9	145.3	147.8	150.2	149.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	173.5	173.7	173.8	174.0	174.1	173.9	173.2	172.5	171.9	171.2	170.4
115°	195.8	195.5	195.3	195.0	194.7	194.1	193.4	192.7	191.9	191.2	190.5
117.5°	213.8	213.8	213.7	213.6	213.5	213.2	212.6	212.0	211.4	210.8	210.5
120°	232.5	232.5	232.5	232.5	232.5	232.2	231.6	231.0	230.4	229.8	229.6
122.5°	250.8	250.7	250.7	250.6	250.5	250.3	249.9	249.5	249.2	248.8	248.5
125°	267.8	267.6	267.5	267.3	267.2	267.0	266.9	266.7	266.6	266.5	266.2
127.5°	284.4	284.6	284.7	284.9	285.0	285.0	284.8	284.5	284.3	284.1	283.7
130°	300.4	300.6	300.7	300.9	301.0	300.9	300.6	300.4	300.1	299.8	299.5
132.5°	315.1	315.3	315.5	315.7	316.0	315.9	315.6	315.3	315.0	314.7	314.5
135°	330.1	330.3	330.5	330.7	331.0	331.0	330.7	330.5	330.3	330.1	329.8
137.5°	344.4	344.5	344.7	344.8	345.0	344.9	344.5	344.1	343.8	343.4	343.2
140°	357.0	357.2	357.3	357.5	357.6	357.6	357.3	357.0	356.7	356.4	356.2
142.5°	368.7	368.9	369.1	369.4	369.6	369.6	369.4	369.1	368.9	368.7	368.5
145°	380.7	380.7	380.7	380.7	380.7	380.6	380.5	380.3	380.2	380.0	379.9
147.5°	389.4	389.7	390.1	390.5	390.8	390.9	390.8	390.6	390.5	390.4	390.2
150°	399.3	399.6	399.8	400.0	400.2	400.3	400.1	400.0	399.8	399.7	399.5
152.5°	407.3	407.7	408.1	408.4	408.8	408.9	408.6	408.3	408.0	407.7	407.6
155°	414.7	415.1	415.6	416.0	416.4	416.5	416.1	415.7	415.4	415.0	414.9
157.5°	421.0	421.6	422.2	422.8	423.4	423.4	423.0	422.5	422.1	421.7	421.7
160°	427.0	427.5	428.0	428.5	429.1	429.1	428.7	428.2	427.8	427.3	427.4
162.5°	432.7	433.1	433.5	434.0	434.4	434.4	433.9	433.4	432.8	432.3	432.4
165°	437.0	437.5	438.0	438.5	439.1	439.0	438.4	437.8	437.2	436.6	436.7
167.5°	440.3	440.9	441.5	442.1	442.7	442.7	442.1	441.5	440.9	440.3	440.3
170°	443.3	443.9	444.5	445.1	445.7	445.7	445.1	444.5	443.9	443.3	443.3
172.5°	445.0	445.6	446.3	447.0	447.6	447.7	447.1	446.5	445.9	445.3	445.2
175°	446.6	447.2	447.8	448.4	449.0	449.0	448.5	448.0	447.5	447.0	446.9
177.5°	447.0	447.7	448.5	449.2	449.9	450.0	449.4	448.8	448.2	447.6	447.6
180°	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0
2.5°	2498.2	2495.8	2472.7	2449.5	2426.8	2404.2	2387.3	2370.4	2341.9	2313.5	2295.6
5°	2653.1	2634.7	2598.1	2561.4	2506.4	2451.4	2405.1	2358.8	2300.0	2241.1	2191.9
7.5°	2739.4	2724.5	2680.1	2635.7	2562.9	2490.0	2417.7	2345.3	2258.5	2171.7	2097.4
10°	2741.8	2754.4	2717.7	2681.0	2599.0	2517.0	2418.6	2320.2	2203.5	2086.8	1990.8
12.5°	2656.0	2710.0	2702.3	2694.6	2611.1	2527.7	2408.0	2288.4	2145.1	2001.9	1881.7
15°	2495.3	2600.0	2630.9	2661.8	2592.8	2523.8	2387.8	2251.7	2083.4	1915.0	1777.1
17.5°	2288.4	2435.0	2516.6	2598.1	2547.9	2497.7	2348.7	2199.6	2010.1	1820.5	1670.5
20°	2043.3	2235.3	2363.2	2491.0	2472.7	2454.3	2300.5	2146.6	1942.0	1737.5	1575.0
22.5°	1801.2	2003.8	2180.3	2356.9	2375.7	2394.5	2239.2	2083.9	1860.0	1636.2	1470.8
25°	1592.3	1798.3	2008.6	2218.9	2261.4	2303.8	2156.2	2008.6	1776.6	1544.6	1380.1
27.5°	1393.1	1588.9	1820.5	2052.0	2129.2	2206.4	2071.3	1936.3	1694.6	1452.9	1288.9
30°	1230.5	1405.6	1642.0	1878.4	1985.9	2093.5	1969.5	1845.6	1605.8	1366.1	1205.5
32.5°	1079.1	1235.8	1473.2	1710.5	1835.4	1960.4	1853.3	1746.2	1515.6	1285.1	1126.3
35°	959.4	1099.8	1321.2	1542.6	1682.5	1822.4	1734.6	1646.8	1421.6	1196.3	1046.3
37.5°	856.7	974.4	1182.3	1390.2	1538.8	1687.4	1614.0	1540.7	1328.9	1117.2	975.4
40°	771.8	866.3	1059.8	1253.2	1398.9	1544.6	1481.9	1419.2	1229.6	1040.0	907.3
42.5°	699.0	780.5	954.1	1127.8	1261.4	1395.0	1353.5	1312.1	1140.3	968.6	845.6
45°	634.8	703.3	856.2	1009.1	1132.1	1255.1	1222.3	1189.5	1041.5	893.4	780.5
47.5°	577.9	636.7	773.2	909.8	1020.2	1130.7	1100.3	1069.9	947.4	824.9	722.1
50°	525.8	576.0	689.8	803.6	903.0	1002.4	977.3	952.2	850.9	749.6	660.9
52.5°	476.6	518.1	620.3	722.6	802.7	882.7	863.5	844.2	766.0	687.9	607.3
55°	429.8	467.9	554.3	640.6	709.1	777.6	758.3	739.0	678.2	617.4	546.5
57.5°	387.3	420.6	490.6	560.5	615.0	669.5	660.4	651.2	600.6	549.9	491.5
60°	342.5	372.4	432.7	493.0	536.9	580.8	570.2	559.6	523.4	487.2	437.0
62.5°	302.4	329.0	377.2	425.5	461.2	496.8	489.1	481.4	453.9	426.4	384.9
65°	260.5	286.5	325.6	364.7	392.7	420.6	413.9	407.1	386.4	365.6	332.4
67.5°	222.4	244.1	277.8	311.6	330.4	349.2	345.4	341.5	325.6	309.7	283.6
70°	183.8	202.6	230.6	258.6	271.6	284.6	286.0	287.5	273.0	258.6	239.3
72.5°	145.2	160.1	186.2	212.2	222.4	232.5	232.0	231.5	222.9	214.2	196.8
75°	111.4	122.5	142.8	163.0	171.7	180.4	182.3	184.3	176.1	167.9	158.2
77.5°	80.1	87.8	103.2	118.7	128.3	138.0	138.9	139.9	136.0	132.2	123.0
80°	56.4	58.8	68.5	78.1	88.3	98.4	99.9	101.3	97.4	93.6	87.8
82.5°	39.1	40.5	43.9	47.3	55.5	63.7	65.6	67.5	65.6	63.7	57.4
85°	23.6	24.1	25.6	27.0	30.9	34.7	36.7	38.6	37.6	36.7	33.3
87.5°	10.6	10.6	11.1	11.6	12.5	13.5	15.9	18.3	16.9	15.4	14.0
90°	6.1	5.1	4.1	3.3	2.6	1.8	1.1	0.3	1.1	1.8	2.6
92.5°	7.3	6.7	6.0	5.9	6.3	6.8	7.2	7.7	7.2	6.8	6.3
95°	8.7	7.9	7.1	8.2	11.2	14.2	17.3	20.3	17.3	14.2	11.2
97.5°	18.2	22.0	25.8	28.7	30.8	32.8	34.9	37.0	34.9	32.8	30.8
100°	34.1	45.6	57.2	62.2	60.7	59.2	57.8	56.3	57.8	59.2	60.7
102.5°	50.4	63.3	76.2	82.1	81.2	80.2	79.2	78.3	79.2	80.2	81.2
105°	86.3	92.9	99.6	102.5	101.7	100.9	100.1	99.3	100.1	100.9	101.7
107.5°	127.3	126.2	125.1	124.2	123.6	122.9	122.2	121.6	122.2	122.9	123.6
110°	148.6	147.8	147.0	146.3	145.7	145.1	144.5	143.9	144.5	145.1	145.7





TEST NUMBER: P832359

CATALOG NUMBER: S123RDIP-S775D365U830-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	169.6	168.8	167.9	167.3	166.8	166.2	165.7	165.2	165.7	166.2	166.8
115°	189.8	189.2	188.5	188.0	187.5	187.1	186.6	186.2	186.6	187.1	187.5
117.5°	210.1	209.7	209.4	208.9	208.4	207.9	207.4	206.8	207.4	207.9	208.4
120°	229.4	229.1	228.9	228.5	227.8	227.2	226.5	225.8	226.5	227.2	227.8
122.5°	248.2	247.9	247.6	247.2	246.7	246.2	245.7	245.1	245.7	246.2	246.7
125°	265.9	265.6	265.3	264.8	264.2	263.6	263.0	262.5	263.0	263.6	264.2
127.5°	283.4	283.0	282.6	282.1	281.6	281.0	280.4	279.8	280.4	281.0	281.6
130°	299.2	298.9	298.6	298.1	297.5	296.9	296.4	295.8	296.4	296.9	297.5
132.5°	314.3	314.1	313.9	313.5	312.9	312.3	311.7	311.1	311.7	312.3	312.9
135°	329.5	329.2	328.9	328.5	328.1	327.6	327.2	326.7	327.2	327.6	328.1
137.5°	343.1	342.9	342.8	342.4	341.8	341.2	340.7	340.1	340.7	341.2	341.8
140°	355.9	355.7	355.5	355.2	354.7	354.3	353.8	353.4	353.8	354.3	354.7
142.5°	368.3	368.0	367.8	367.5	367.0	366.6	366.2	365.7	366.2	366.6	367.0
145°	379.7	379.6	379.4	379.1	378.6	378.1	377.5	377.0	377.5	378.1	378.6
147.5°	390.1	389.9	389.8	389.5	389.1	388.8	388.4	388.0	388.4	388.8	389.1
150°	399.4	399.2	399.1	398.9	398.7	398.5	398.2	398.0	398.2	398.5	398.7
152.5°	407.5	407.5	407.4	407.3	407.2	407.2	407.1	407.0	407.1	407.2	407.2
155°	414.9	414.8	414.7	414.7	414.9	415.0	415.2	415.3	415.2	415.0	414.9
157.5°	421.8	421.9	422.0	422.0	422.0	422.0	422.0	422.0	422.0	422.0	422.0
160°	427.5	427.5	427.6	427.7	427.8	427.8	427.9	428.0	427.9	427.8	427.8
162.5°	432.5	432.5	432.6	432.8	433.0	433.2	433.4	433.7	433.4	433.2	433.0
165°	436.8	436.9	436.9	437.1	437.3	437.5	437.8	438.0	437.8	437.5	437.3
167.5°	440.3	440.3	440.3	440.5	440.8	441.1	441.3	441.6	441.3	441.1	440.8
170°	443.3	443.3	443.3	443.5	443.8	444.1	444.3	444.6	444.3	444.1	443.8
172.5°	445.2	445.1	445.0	445.2	445.5	445.9	446.3	446.6	446.3	445.9	445.5
175°	446.8	446.8	446.7	446.8	447.2	447.6	447.9	448.3	447.9	447.6	447.2
177.5°	447.5	447.4	447.3	447.5	447.9	448.2	448.6	449.0	448.6	448.2	447.9
180°	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3



TEST NUMBER: P832359

CATALOG NUMBER: S123RDIP-S775D365U830-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0	2353.0
2.5°	2277.8	2250.3	2222.8	2203.0	2183.2	2158.6	2134.0	2133.1	2132.1	2113.8	2095.4
5°	2142.7	2095.0	2047.2	2000.4	1953.6	1906.8	1860.0	1849.4	1838.8	1822.9	1807.0
7.5°	2023.1	1946.9	1870.7	1810.8	1751.0	1704.2	1657.4	1625.6	1593.8	1569.2	1544.6
10°	1894.8	1800.2	1705.7	1633.3	1561.0	1510.3	1459.7	1423.0	1386.3	1369.0	1351.6
12.5°	1761.6	1658.9	1556.1	1485.2	1414.3	1353.5	1292.8	1259.5	1226.2	1202.1	1178.0
15°	1639.1	1528.7	1418.2	1342.9	1267.7	1210.8	1153.8	1120.6	1087.3	1063.2	1039.0
17.5°	1520.4	1409.0	1297.6	1221.4	1145.2	1093.5	1041.9	1009.6	977.3	962.3	947.4
20°	1412.4	1300.0	1187.6	1115.7	1043.9	993.2	942.6	925.2	907.8	893.8	879.9
22.5°	1305.3	1197.3	1089.2	1020.2	951.2	914.6	877.9	863.9	849.9	839.3	828.7
25°	1215.6	1108.0	1000.4	940.2	879.9	851.4	822.9	813.8	804.6	794.0	783.4
27.5°	1124.9	1022.6	920.4	872.1	823.9	800.7	777.6	766.0	754.4	745.8	737.1
30°	1044.8	950.3	855.7	815.7	775.7	755.4	735.1	722.6	710.1	701.9	693.7
32.5°	967.6	883.7	799.8	765.5	731.3	711.5	691.7	679.7	667.6	658.0	648.3
35°	896.3	823.4	750.6	719.2	687.9	668.1	648.3	636.3	624.2	614.5	604.9
37.5°	833.5	767.5	701.4	671.9	642.5	625.2	607.8	595.3	582.7	572.6	562.5
40°	774.7	716.3	658.0	629.5	601.0	582.2	563.4	552.3	541.2	532.1	522.9
42.5°	722.6	669.1	615.5	587.5	559.6	541.7	523.9	510.8	497.8	492.5	487.2
45°	667.6	620.3	573.1	546.0	519.0	500.2	481.4	470.3	459.2	454.4	449.6
47.5°	619.4	575.5	531.6	505.0	478.5	461.6	444.8	436.1	427.4	420.6	413.9
50°	572.1	529.6	487.2	461.6	436.1	421.6	407.1	396.5	385.9	381.1	376.3
52.5°	526.8	488.2	449.6	423.5	397.5	383.5	369.5	360.3	351.2	341.0	330.9
55°	475.6	441.9	408.1	384.9	361.8	347.3	332.8	322.2	311.6	301.0	290.4
57.5°	433.2	399.9	366.6	345.9	325.1	311.1	297.1	285.6	274.0	265.3	256.6
60°	386.9	357.9	329.0	308.7	288.5	275.0	261.4	250.4	239.3	234.9	230.6
62.5°	343.5	316.4	289.4	271.6	253.7	240.7	227.7	220.4	213.2	210.3	207.4
65°	299.1	275.9	252.8	236.4	220.0	208.9	197.8	194.4	191.0	188.6	186.2
67.5°	257.6	237.8	218.0	203.6	189.1	181.4	173.7	169.8	165.9	163.0	160.1
70°	220.0	202.6	185.2	172.7	160.1	152.9	145.7	142.3	138.9	133.6	128.3
72.5°	179.4	165.9	152.4	142.8	133.1	126.9	120.6	113.8	107.1	102.3	97.4
75°	148.6	135.1	121.6	112.4	103.2	96.0	88.8	86.3	83.9	82.5	81.0
77.5°	113.8	102.3	90.7	83.5	76.2	72.8	69.5	68.0	66.6	66.1	65.6
80°	82.0	72.4	62.7	58.8	55.0	54.0	53.1	52.1	51.1	50.6	50.2
82.5°	51.1	46.3	41.5	40.5	39.6	39.1	38.6	38.1	37.6	37.1	36.7
85°	29.9	28.0	26.0	25.6	25.1	24.6	24.1	24.1	24.1	24.1	24.1
87.5°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.1	11.6
90°	3.3	4.1	5.1	6.1	7.0	8.0	8.3	8.6	8.9	9.2	9.4
92.5°	5.9	6.0	6.7	7.3	8.0	8.7	9.2	9.7	10.2	10.7	11.0
95°	8.2	7.1	7.9	8.7	9.5	10.3	10.8	11.4	11.9	12.4	12.7
97.5°	28.7	25.8	22.0	18.2	14.4	10.7	11.3	11.8	12.4	13.0	13.4
100°	62.2	57.2	45.6	34.1	22.5	11.0	11.6	12.2	12.8	13.4	13.7
102.5°	82.1	76.2	63.3	50.4	37.5	24.6	22.2	19.8	17.3	14.9	13.7
105°	102.5	99.6	92.9	86.3	79.6	72.9	59.8	46.7	33.6	20.5	14.1
107.5°	124.2	125.1	126.2	127.3	128.5	129.6	118.2	106.8	95.4	84.0	73.4
110°	146.3	147.0	147.8	148.6	149.4	150.2	147.8	145.3	142.9	140.4	133.9



TEST NUMBER: P832359

CATALOG NUMBER: S123RDIP-S775D365U830-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	167.3	167.9	168.8	169.6	170.4	171.2	171.9	172.5	173.2	173.9	174.1
115°	188.0	188.5	189.2	189.8	190.5	191.2	191.9	192.7	193.4	194.1	194.7
117.5°	208.9	209.4	209.7	210.1	210.5	210.8	211.4	212.0	212.6	213.2	213.5
120°	228.5	228.9	229.1	229.4	229.6	229.8	230.4	231.0	231.6	232.2	232.5
122.5°	247.2	247.6	247.9	248.2	248.5	248.8	249.2	249.5	249.9	250.3	250.5
125°	264.8	265.3	265.6	265.9	266.2	266.5	266.6	266.7	266.9	267.0	267.2
127.5°	282.1	282.6	283.0	283.4	283.7	284.1	284.3	284.5	284.8	285.0	285.0
130°	298.1	298.6	298.9	299.2	299.5	299.8	300.1	300.4	300.6	300.9	301.0
132.5°	313.5	313.9	314.1	314.3	314.5	314.7	315.0	315.3	315.6	315.9	316.0
135°	328.5	328.9	329.2	329.5	329.8	330.1	330.3	330.5	330.7	331.0	331.0
137.5°	342.4	342.8	342.9	343.1	343.2	343.4	343.8	344.1	344.5	344.9	345.0
140°	355.2	355.5	355.7	355.9	356.2	356.4	356.7	357.0	357.3	357.6	357.6
142.5°	367.5	367.8	368.0	368.3	368.5	368.7	368.9	369.1	369.4	369.6	369.6
145°	379.1	379.4	379.6	379.7	379.9	380.0	380.2	380.3	380.5	380.6	380.7
147.5°	389.5	389.8	389.9	390.1	390.2	390.4	390.5	390.6	390.8	390.9	390.8
150°	398.9	399.1	399.2	399.4	399.5	399.7	399.8	400.0	400.1	400.3	400.2
152.5°	407.3	407.4	407.5	407.5	407.6	407.7	408.0	408.3	408.6	408.9	408.8
155°	414.7	414.7	414.8	414.9	414.9	415.0	415.4	415.7	416.1	416.5	416.4
157.5°	422.0	422.0	421.9	421.8	421.7	421.7	422.1	422.5	423.0	423.4	423.4
160°	427.7	427.6	427.5	427.5	427.4	427.3	427.8	428.2	428.7	429.1	429.1
162.5°	432.8	432.6	432.5	432.5	432.4	432.3	432.8	433.4	433.9	434.4	434.4
165°	437.1	436.9	436.9	436.8	436.7	436.6	437.2	437.8	438.4	439.0	439.1
167.5°	440.5	440.3	440.3	440.3	440.3	440.3	440.9	441.5	442.1	442.7	442.7
170°	443.5	443.3	443.3	443.3	443.3	443.3	443.9	444.5	445.1	445.7	445.7
172.5°	445.2	445.0	445.1	445.2	445.2	445.3	445.9	446.5	447.1	447.7	447.6
175°	446.8	446.7	446.8	446.8	446.9	447.0	447.5	448.0	448.5	449.0	449.0
177.5°	447.5	447.3	447.4	447.5	447.6	447.6	448.2	448.8	449.4	450.0	449.9
180°	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3



TEST NUMBER: P832359

CATALOG NUMBER: S123RDIP-S775D365U830-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2353.0	2353.0	2353.0	2353.0
2.5°	2090.6	2085.8	2083.9	2081.9
5°	1792.0	1777.1	1773.7	1770.3
7.5°	1538.3	1532.0	1511.3	1490.5
10°	1332.3	1313.0	1304.3	1295.7
12.5°	1160.1	1142.3	1139.4	1136.5
15°	1026.5	1014.0	1009.6	1005.3
17.5°	938.7	930.0	924.7	919.4
20°	873.6	867.3	863.5	859.6
22.5°	823.9	819.1	816.2	813.3
25°	776.1	768.9	766.5	764.1
27.5°	730.8	724.5	722.1	719.7
30°	688.4	683.0	679.7	676.3
32.5°	642.0	635.8	633.8	631.9
35°	601.0	597.2	595.3	593.3
37.5°	557.6	552.8	549.9	547.0
40°	520.5	518.1	516.6	515.2
42.5°	482.9	478.5	478.0	477.6
45°	445.2	440.9	439.9	439.0
47.5°	410.0	406.2	405.7	405.2
50°	370.9	365.6	361.8	357.9
52.5°	326.1	321.3	317.9	314.5
55°	285.1	279.8	276.9	274.0
57.5°	254.2	251.8	250.4	248.9
60°	229.1	227.7	226.7	225.8
62.5°	206.0	204.5	204.5	204.5
65°	184.8	183.3	181.9	180.4
67.5°	157.3	154.4	153.9	153.4
70°	124.0	119.6	119.1	118.7
72.5°	97.0	96.5	95.5	94.5
75°	80.1	79.1	79.1	79.1
77.5°	64.6	63.7	63.7	63.7
80°	49.7	49.2	49.7	50.2
82.5°	36.7	36.7	36.2	35.7
85°	23.6	23.2	23.2	23.2
87.5°	11.6	11.6	11.6	11.6
90°	9.5	9.7	9.8	10.0
92.5°	11.1	11.2	11.3	11.3
95°	12.7	12.7	12.7	12.7
97.5°	13.4	13.5	13.6	13.7
100°	13.8	13.8	13.9	14.0
102.5°	13.9	14.0	14.2	14.3
105°	14.2	14.4	14.5	14.7
107.5°	63.7	54.0	44.3	34.6
110°	123.3	112.8	102.2	91.6



TEST NUMBER: P832359

CATALOG NUMBER: S123RDIP-S775D365U830-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	174.0	173.8	173.7	173.5
115°	195.0	195.3	195.5	195.8
117.5°	213.6	213.7	213.8	213.8
120°	232.5	232.5	232.5	232.5
122.5°	250.6	250.7	250.7	250.8
125°	267.3	267.5	267.6	267.8
127.5°	284.9	284.7	284.6	284.4
130°	300.9	300.7	300.6	300.4
132.5°	315.7	315.5	315.3	315.1
135°	330.7	330.5	330.3	330.1
137.5°	344.8	344.7	344.5	344.4
140°	357.5	357.3	357.2	357.0
142.5°	369.4	369.1	368.9	368.7
145°	380.7	380.7	380.7	380.7
147.5°	390.5	390.1	389.7	389.4
150°	400.0	399.8	399.6	399.3
152.5°	408.4	408.1	407.7	407.3
155°	416.0	415.6	415.1	414.7
157.5°	422.8	422.2	421.6	421.0
160°	428.5	428.0	427.5	427.0
162.5°	434.0	433.5	433.1	432.7
165°	438.5	438.0	437.5	437.0
167.5°	442.1	441.5	440.9	440.3
170°	445.1	444.5	443.9	443.3
172.5°	447.0	446.3	445.6	445.0
175°	448.4	447.8	447.2	446.6
177.5°	449.2	448.5	447.7	447.0
180°	448.3	448.3	448.3	448.3



TEST NUMBER: P832359

CATALOG NUMBER: S123RDIP-S775D365U830-4F0-1E-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	13.65	14.63	14.43	15.43	16.39	18.31	19.30	19.09	20.09	21.06
	3H	14.88	15.76	15.68	16.57	17.56	19.82	20.70	20.62	21.51	22.50
	4H	15.27	16.10	16.08	16.91	17.92	20.32	21.15	21.13	21.96	22.97
	6H	15.56	16.32	16.38	17.14	18.16	20.64	21.40	21.46	22.22	23.24
	8H	15.65	16.37	16.48	17.21	18.24	20.72	21.45	21.56	22.29	23.31
	12H	15.71	16.40	16.55	17.23	18.28	20.76	21.45	21.60	22.28	23.33
4H	2H	14.39	15.22	15.21	16.03	17.04	18.33	19.15	19.14	19.97	20.98
	3H	15.77	16.46	16.60	17.31	18.33	20.00	20.68	20.82	21.53	22.55
	4H	16.23	16.86	17.07	17.70	18.75	20.61	21.23	21.45	22.08	23.13
	6H	16.61	17.15	17.47	18.02	19.07	21.05	21.59	21.91	22.46	23.52
	8H	16.74	17.24	17.60	18.10	19.17	21.19	21.69	22.05	22.55	23.62
	12H	16.82	17.27	17.70	18.15	19.23	21.26	21.71	22.14	22.59	23.67
8H	4H	16.56	17.06	17.42	17.92	18.99	20.59	21.09	21.45	21.95	23.02
	6H	17.03	17.44	17.91	18.35	19.42	21.09	21.50	21.98	22.41	23.48
	8H	17.22	17.59	18.12	18.49	19.57	21.27	21.64	22.17	22.54	23.63
	12H	17.37	17.69	18.27	18.58	19.72	21.40	21.72	22.30	22.61	23.75
12H	4H	16.58	17.03	17.45	17.91	18.98	20.54	20.99	21.42	21.88	22.95
	6H	17.09	17.45	17.98	18.35	19.44	21.06	21.43	21.96	22.33	23.42
	8H	17.31	17.63	18.21	18.52	19.66	21.26	21.58	22.16	22.48	23.62