

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: P832114

Luminaire Tested: S123RDIP-S340D365U950-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832114  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S340D365U950-4F0-1E-UDD-G1  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: -

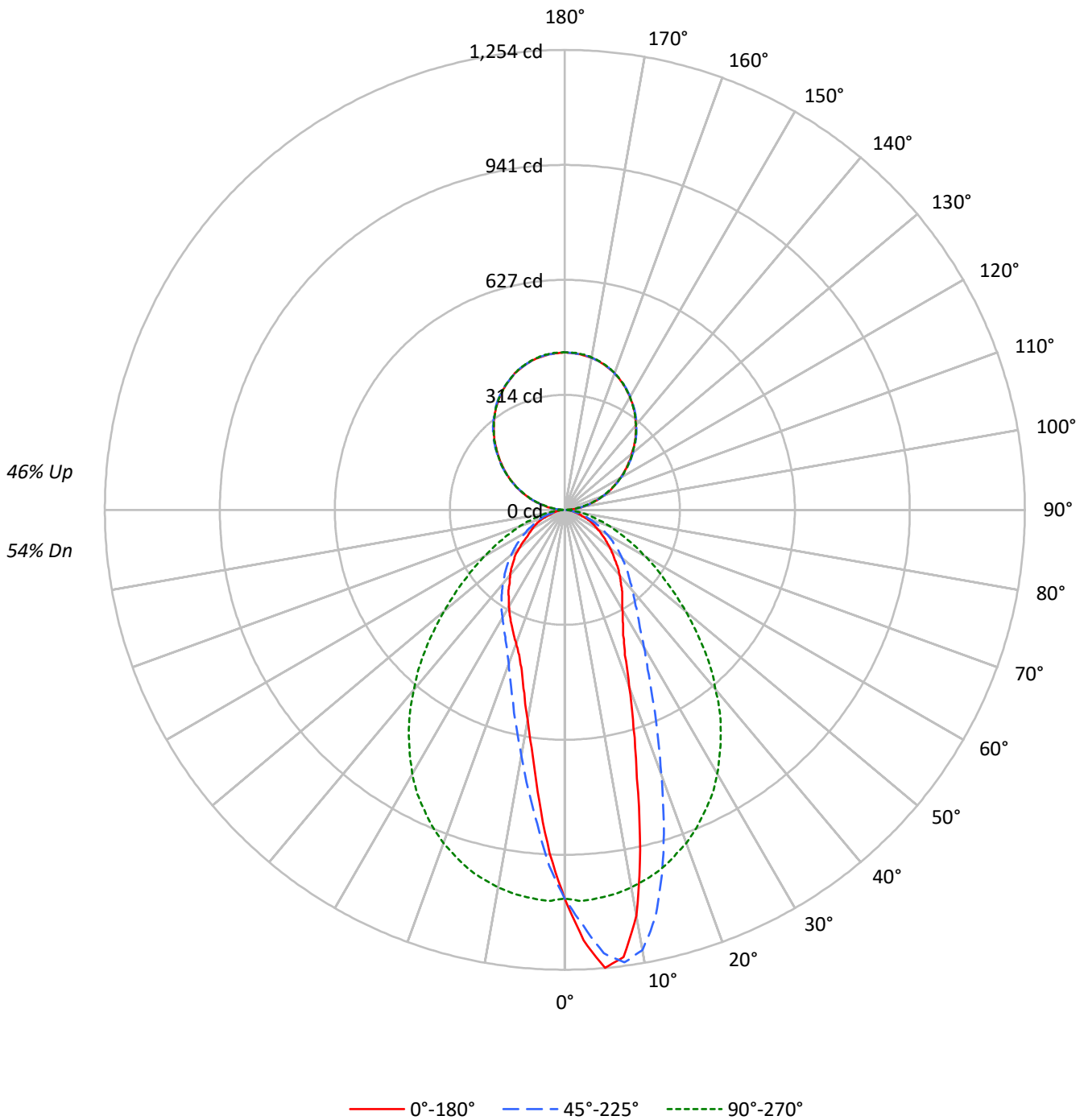
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2595.2 lumens  
Efficiency: N/A  
Efficacy: 115.9 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): 22.4  
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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54	54	54	54	
1	100	96	92	89	92	89	86	83	76	74	72	65	63	62	54	53	52	47	47	47	47	
2	91	85	79	74	85	79	74	70	68	64	61	58	55	53	49	47	45	41	41	41	41	
3	84	75	68	63	78	70	64	59	61	56	53	52	49	46	44	42	40	36	36	36	36	
4	77	67	60	54	72	63	56	51	55	50	46	47	44	40	40	38	35	32	32	32	32	
5	72	61	53	47	66	57	50	45	50	44	40	43	39	36	37	34	31	28	28	28	28	
6	66	55	47	42	62	52	45	40	45	40	36	39	35	32	34	31	28	26	26	26	26	
7	62	50	42	37	57	47	40	35	41	36	32	36	32	29	31	28	26	23	23	23	23	
8	58	46	38	33	54	43	37	32	38	33	29	34	29	26	29	26	24	21	21	21	21	
9	54	42	35	30	50	40	33	29	35	30	26	31	27	24	27	24	22	20	20	20	20	
10	51	39	32	27	47	37	31	26	33	28	24	29	25	22	26	22	20	18	18	18	18	

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

	0°	45°	90°	135°	180°
0°	11408	11408	11408	11408	11408
5°	13545	13113	11479	9280	8616
10°	12272	13319	11423	7436	6379
15°	8450	11420	11302	6077	5046
20°	5879	8793	11074	5125	4435
25°	4480	6701	10745	4555	4087
30°	3899	5358	10332	4228	3786
35°	3581	4519	9746	3954	3511
40°	3267	4036	8982	3684	3260
45°	2950	3691	8156	3430	3009
50°	2678	3406	7182	3180	2699
55°	2423	3126	6247	2935	2316
60°	2170	2844	5425	2665	2189
65°	2004	2524	4671	2397	2071
70°	1627	2181	4076	2168	1681
75°	1426	1734	3452	1797	1481
80°	1296	1469	2827	1506	1401
85°	1186	1284	2149	1371	1284

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 8605 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.6	3.7
10°-20°	223.5	8.6
20°-30°	256.5	9.9
30°-40°	252.8	9.7
40°-50°	222.9	8.6
50°-60°	171.5	6.6
60°-70°	112.8	4.3
70°-80°	54.8	2.1
80°-90°	14.7	0.6
90°-100°	27.6	1.1
100°-110°	83.6	3.2
110°-120°	142.3	5.5
120°-130°	187.3	7.2
130°-140°	210.5	8.1
140°-150°	206.9	8.0
150°-160°	174.2	6.7
160°-170°	116.0	4.5
170°-180°	40.6	1.6
0°-30°	576.6	22.2
0°-40°	829.4	32.0
0°-60°	1223.8	47.2
0°-90°	1406.1	54.2
90°-120°	253.6	9.8
90°-150°	858.3	33.1
90°-180°	1189.0	45.8
0°-180°	2595.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1060	1060	1060	1060	1060	
5°	1254	1214	1062	859	797	115
15°	758	1025	1014	545	453	214
25°	377	564	905	384	344	178
35°	272	344	742	301	267	170
45°	194	242	536	225	198	150
55°	129	167	333	156	123	116
65°	79	99	183	94	81	77
75°	34	42	83	43	36	37
85°	10	10	17	11	10	10
90°	10	8	0	8	10	5
95°	26	25	20	25	26	26
105°	80	80	76	80	80	85
115°	144	144	143	144	144	142
125°	207	210	210	210	207	185
135°	272	274	272	274	272	209
145°	330	332	330	332	330	206
155°	377	378	378	378	377	174
165°	410	411	412	411	410	116
175°	426	427	428	427	426	41
180°	429	429	429	429	429	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8
2.5°	1174.5	1170.8	1167.2	1166.1	1165.0	1161.5	1158.0	1150.2	1142.4	1134.3	1126.3
5°	1253.6	1254.1	1254.5	1253.4	1252.3	1247.8	1243.2	1233.6	1224.1	1213.6	1203.2
7.5°	1229.3	1236.2	1243.2	1244.5	1245.8	1249.3	1252.8	1250.6	1248.4	1244.5	1240.6
10°	1122.8	1122.4	1122.0	1129.8	1137.6	1160.9	1184.1	1196.1	1208.0	1218.6	1229.3
12.5°	949.0	949.7	950.3	976.0	1001.6	1023.5	1045.5	1075.9	1106.3	1139.1	1171.9
15°	758.3	768.9	779.6	802.4	825.2	858.2	891.2	932.1	972.9	1024.8	1076.8
17.5°	622.7	627.2	631.8	653.8	675.7	707.0	738.3	784.5	830.8	897.7	964.7
20°	513.2	517.3	521.4	537.3	553.2	583.1	613.1	657.2	701.3	767.6	833.9
22.5°	428.4	436.5	444.5	455.2	465.8	487.5	509.3	554.2	599.2	659.6	720.0
25°	377.2	380.9	384.6	393.7	402.8	423.7	444.5	474.3	504.1	564.2	624.4
27.5°	342.4	343.5	344.6	351.3	358.1	371.5	385.0	412.6	440.2	489.7	539.3
30°	313.7	315.7	317.6	322.9	328.1	337.8	347.6	367.2	386.7	431.1	475.4
32.5°	291.6	292.7	293.7	298.1	302.4	309.6	316.8	332.2	347.6	381.5	415.4
35°	272.5	272.7	272.9	276.1	279.4	286.4	293.3	306.1	318.9	343.9	368.9
37.5°	250.7	252.2	253.8	256.2	258.5	264.6	270.7	281.1	291.6	312.2	332.9
40°	232.5	233.8	235.1	237.9	240.7	245.5	250.3	259.9	269.4	287.2	305.0
42.5°	214.2	215.1	216.0	218.8	221.6	227.5	233.3	240.9	248.6	263.3	278.1
45°	193.8	196.0	198.1	201.2	204.2	209.2	214.2	222.0	229.9	242.5	255.1
47.5°	176.9	177.9	179.0	181.6	184.2	190.3	196.4	203.4	210.3	222.0	233.8
50°	159.9	160.3	160.8	163.2	165.6	171.0	176.4	184.5	192.5	203.4	214.2
52.5°	143.8	144.9	146.0	148.4	150.8	154.5	158.2	166.4	174.7	185.3	196.0
55°	129.1	129.7	130.4	132.1	133.8	138.2	142.5	149.7	156.9	166.6	176.4
57.5°	115.2	116.0	116.9	118.2	119.5	123.4	127.3	133.6	139.9	149.7	159.5
60°	100.8	101.9	103.0	104.5	106.0	109.1	112.1	117.8	123.4	132.1	140.8
62.5°	90.4	90.6	90.8	92.1	93.4	95.6	97.8	102.3	106.9	115.6	124.3
65°	78.7	79.3	80.0	80.6	81.3	83.0	84.7	88.6	92.6	99.1	105.6
67.5°	66.5	67.1	67.8	68.9	70.0	71.5	73.0	75.6	78.2	84.3	90.4
70°	51.7	51.7	51.7	53.4	55.2	57.8	60.4	62.4	64.3	69.3	74.3
72.5°	42.1	42.4	42.6	42.8	43.0	44.5	46.1	49.3	52.6	55.6	58.7
75°	34.3	34.5	34.8	35.0	35.2	35.6	36.1	37.2	38.2	41.7	45.2
77.5°	27.4	27.6	27.8	28.0	28.2	28.7	29.1	29.5	30.0	31.3	32.6
80°	20.9	21.1	21.3	21.5	21.7	21.9	22.2	22.6	23.0	23.7	24.3
82.5°	15.2	15.2	15.2	15.2	15.2	15.6	16.1	16.1	16.1	16.5	16.9
85°	9.6	9.6	9.6	9.8	10.0	10.0	10.0	10.2	10.4	10.4	10.4
87.5°	4.3	4.1	3.9	4.1	4.3	4.3	4.3	4.6	4.8	4.8	4.8
90°	10.1	10.0	9.8	9.7	9.5	9.3	9.0	8.7	8.4	8.1	7.1
92.5°	14.5	14.6	14.8	14.9	15.1	15.1	14.8	14.6	14.4	14.2	13.7
95°	26.3	26.3	26.3	26.3	26.3	26.1	25.8	25.5	25.2	24.9	24.3
97.5°	37.8	37.8	37.9	38.0	38.1	37.9	37.5	37.2	36.8	36.4	36.0
100°	51.2	51.1	50.9	50.8	50.6	50.5	50.2	50.0	49.8	49.6	49.2
102.5°	65.1	65.1	65.2	65.3	65.4	65.3	65.1	64.8	64.6	64.4	63.9
105°	80.2	80.1	79.9	79.8	79.6	79.6	79.6	79.6	79.6	79.6	78.9
107.5°	95.7	95.8	95.9	96.0	96.0	96.0	95.7	95.5	95.3	95.1	94.8
110°	111.6	111.7	111.9	112.0	112.2	112.1	111.8	111.5	111.2	110.9	110.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	128.4	128.4	128.4	128.4	128.4	128.3	127.9	127.5	127.1	126.8	126.8
115°	143.6	143.7	143.8	143.8	143.9	143.9	143.8	143.8	143.7	143.6	143.8
117.5°	159.1	159.4	159.6	159.8	160.0	160.1	160.1	160.1	160.1	160.1	160.3
120°	175.6	175.8	175.9	176.1	176.2	176.4	176.4	176.5	176.6	176.7	177.0
122.5°	191.5	191.7	191.9	192.2	192.4	192.6	192.8	193.1	193.3	193.5	193.7
125°	207.3	207.6	207.9	208.2	208.5	208.8	209.1	209.4	209.7	210.0	210.2
127.5°	223.2	223.5	223.8	224.1	224.4	224.8	225.2	225.7	226.1	226.6	226.7
130°	238.7	239.2	239.7	240.3	240.8	241.2	241.5	241.8	242.1	242.4	242.6
132.5°	254.9	255.2	255.6	256.0	256.4	256.7	257.1	257.5	257.9	258.2	258.4
135°	271.7	271.9	272.0	272.2	272.3	272.6	272.9	273.2	273.5	273.8	273.8
137.5°	286.6	286.8	287.0	287.2	287.5	287.8	288.1	288.5	288.9	289.3	289.0
140°	301.1	301.6	302.1	302.6	303.2	303.5	303.5	303.6	303.7	303.8	303.7
142.5°	315.9	316.3	316.6	317.0	317.4	317.6	317.7	317.8	317.8	317.9	317.8
145°	330.1	330.4	330.7	331.0	331.3	331.4	331.5	331.6	331.7	331.7	331.5
147.5°	342.9	343.3	343.8	344.2	344.7	344.9	344.9	344.9	344.9	344.9	344.7
150°	355.0	355.5	355.9	356.4	356.8	357.0	357.0	357.0	357.0	357.0	356.9
152.5°	366.8	367.2	367.6	367.9	368.3	368.4	368.3	368.1	368.0	367.8	367.7
155°	377.3	377.8	378.3	378.8	379.4	379.5	379.2	378.9	378.6	378.3	378.2
157.5°	387.0	387.5	387.9	388.4	388.8	388.9	388.6	388.3	388.0	387.7	387.6
160°	396.5	396.8	397.1	397.4	397.7	397.6	397.3	396.9	396.5	396.1	396.1
162.5°	403.6	404.1	404.6	405.1	405.6	405.7	405.3	405.0	404.6	404.2	404.2
165°	410.3	410.8	411.3	411.9	412.4	412.4	412.0	411.5	411.1	410.6	410.6
167.5°	416.4	416.8	417.3	417.7	418.2	418.2	417.7	417.3	416.8	416.4	416.3
170°	420.7	421.3	421.8	422.3	422.8	422.8	422.3	421.8	421.3	420.7	420.7
172.5°	424.1	424.6	425.2	425.7	426.2	426.3	425.8	425.4	424.9	424.5	424.5
175°	426.5	427.0	427.5	428.0	428.6	428.6	428.2	427.7	427.3	426.8	426.8
177.5°	427.8	428.3	428.9	429.4	429.9	430.0	429.5	429.1	428.6	428.2	428.2
180°	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8
2.5°	1125.2	1124.1	1113.7	1103.3	1093.1	1082.9	1075.3	1067.6	1054.8	1042.0	1034.0
5°	1195.0	1186.7	1170.2	1153.7	1128.9	1104.1	1083.3	1062.4	1035.9	1009.4	987.3
7.5°	1233.9	1227.1	1207.1	1187.1	1154.3	1121.5	1088.9	1056.3	1017.2	978.1	944.7
10°	1234.9	1240.6	1224.1	1207.6	1170.6	1133.7	1089.4	1045.1	992.5	939.9	896.7
12.5°	1196.3	1220.6	1217.1	1213.6	1176.1	1138.5	1084.6	1030.7	966.2	901.7	847.6
15°	1123.9	1171.1	1185.0	1198.9	1167.8	1136.7	1075.5	1014.2	938.4	862.5	800.4
17.5°	1030.7	1096.8	1133.5	1170.2	1147.6	1125.0	1057.9	990.7	905.3	820.0	752.4
20°	920.3	1006.8	1064.4	1122.0	1113.7	1105.5	1036.1	966.8	874.7	782.6	709.4
22.5°	811.3	902.5	982.0	1061.6	1070.0	1078.5	1008.6	938.6	837.8	737.0	662.4
25°	717.2	810.0	904.7	999.4	1018.5	1037.7	971.2	904.7	800.2	695.7	621.6
27.5°	627.5	715.7	820.0	924.3	959.0	993.8	932.9	872.1	763.3	654.4	580.5
30°	554.2	633.1	739.6	846.0	894.5	942.9	887.1	831.3	723.3	615.3	542.9
32.5°	486.0	556.6	663.5	770.4	826.7	883.0	834.7	786.5	682.7	578.8	507.3
35°	432.1	495.4	595.1	694.8	757.8	820.8	781.3	741.7	640.3	538.8	471.3
37.5°	385.9	438.9	532.5	626.2	693.1	760.0	727.0	693.9	598.6	503.2	439.3
40°	347.6	390.2	477.3	564.5	630.1	695.7	667.4	639.2	553.8	468.4	408.7
42.5°	314.8	351.5	429.8	508.0	568.2	628.3	609.6	591.0	513.6	436.3	380.9
45°	285.9	316.8	385.6	454.5	509.9	565.3	550.6	535.8	469.1	402.4	351.5
47.5°	260.3	286.8	348.3	409.8	459.5	509.3	495.6	481.9	426.7	371.5	325.2
50°	236.8	259.4	310.7	362.0	406.7	451.5	440.2	428.9	383.3	337.6	297.7
52.5°	214.7	233.3	279.4	325.5	361.5	397.6	388.9	380.2	345.0	309.8	273.5
55°	193.6	210.7	249.6	288.5	319.4	350.2	341.5	332.9	305.5	278.1	246.2
57.5°	174.5	189.5	221.0	252.5	277.0	301.6	297.4	293.3	270.5	247.7	221.4
60°	154.3	167.7	194.9	222.0	241.8	261.6	256.8	252.0	235.7	219.4	196.8
62.5°	136.2	148.2	169.9	191.6	207.7	223.8	220.3	216.8	204.4	192.1	173.4
65°	117.3	129.1	146.7	164.3	176.9	189.5	186.4	183.4	174.0	164.7	149.7
67.5°	100.2	109.9	125.1	140.4	148.8	157.3	155.6	153.8	146.7	139.5	127.8
70°	82.8	91.3	103.9	116.5	122.3	128.2	128.8	129.5	123.0	116.5	107.8
72.5°	65.4	72.1	83.9	95.6	100.2	104.7	104.5	104.3	100.4	96.5	88.6
75°	50.2	55.2	64.3	73.4	77.3	81.3	82.1	83.0	79.3	75.6	71.3
77.5°	36.1	39.5	46.5	53.4	57.8	62.1	62.6	63.0	61.3	59.5	55.4
80°	25.4	26.5	30.9	35.2	39.8	44.3	45.0	45.6	43.9	42.1	39.5
82.5°	17.6	18.3	19.8	21.3	25.0	28.7	29.5	30.4	29.5	28.7	25.9
85°	10.6	10.9	11.5	12.2	13.9	15.6	16.5	17.4	16.9	16.5	15.0
87.5°	4.8	4.8	5.0	5.2	5.6	6.1	7.2	8.3	7.6	7.0	6.3
90°	6.1	5.2	4.2	3.3	2.6	1.8	1.1	0.3	1.1	1.8	2.6
92.5°	13.3	12.8	12.4	11.9	11.5	11.0	10.6	10.1	10.6	11.0	11.5
95°	23.7	23.1	22.6	22.0	21.5	20.9	20.4	19.9	20.4	20.9	21.5
97.5°	35.5	35.1	34.6	34.2	33.8	33.5	33.1	32.7	33.1	33.5	33.8
100°	48.8	48.4	48.1	47.6	47.2	46.7	46.3	45.9	46.3	46.7	47.2
102.5°	63.3	62.8	62.3	61.9	61.7	61.5	61.2	61.0	61.2	61.5	61.7
105°	78.2	77.5	76.9	76.5	76.3	76.2	76.0	75.9	76.0	76.2	76.3
107.5°	94.5	94.2	93.9	93.7	93.6	93.5	93.5	93.4	93.5	93.5	93.6
110°	110.6	110.5	110.3	110.2	110.0	109.9	109.7	109.6	109.7	109.9	110.0





TEST NUMBER: P832114

CATALOG NUMBER: S123RDIP-S340D365U950-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	126.8	126.8	126.8	126.7	126.7	126.6	126.5	126.4	126.5	126.6	126.7
115°	143.9	144.1	144.2	144.2	144.0	143.7	143.5	143.3	143.5	143.7	144.0
117.5°	160.4	160.6	160.7	160.8	160.7	160.6	160.6	160.5	160.6	160.6	160.7
120°	177.4	177.8	178.2	178.1	177.7	177.2	176.8	176.3	176.8	177.2	177.7
122.5°	193.8	194.0	194.1	194.0	193.7	193.4	193.1	192.8	193.1	193.4	193.7
125°	210.3	210.5	210.6	210.6	210.4	210.1	209.9	209.7	209.9	210.1	210.4
127.5°	226.9	227.0	227.2	227.0	226.6	226.1	225.7	225.2	225.7	226.1	226.6
130°	242.8	243.1	243.3	243.1	242.5	241.9	241.3	240.7	241.3	241.9	242.5
132.5°	258.5	258.7	258.8	258.6	258.0	257.4	256.8	256.2	256.8	257.4	258.0
135°	273.9	274.0	274.1	273.9	273.4	273.0	272.5	272.1	272.5	273.0	273.4
137.5°	288.8	288.6	288.4	288.1	287.7	287.3	286.9	286.6	286.9	287.3	287.7
140°	303.6	303.5	303.5	303.2	302.9	302.5	302.1	301.7	302.1	302.5	302.9
142.5°	317.6	317.5	317.3	317.1	316.7	316.3	315.9	315.6	315.9	316.3	316.7
145°	331.3	331.1	330.8	330.7	330.5	330.4	330.2	330.1	330.2	330.4	330.5
147.5°	344.4	344.2	344.0	343.7	343.4	343.1	342.8	342.5	342.8	343.1	343.4
150°	356.7	356.6	356.4	356.3	356.1	356.0	355.8	355.7	355.8	356.0	356.1
152.5°	367.7	367.6	367.5	367.4	367.1	366.9	366.7	366.5	366.7	366.9	367.1
155°	378.1	378.0	378.0	377.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9
157.5°	387.6	387.5	387.4	387.4	387.5	387.6	387.6	387.7	387.6	387.6	387.5
160°	396.1	396.1	396.1	396.2	396.4	396.5	396.7	396.8	396.7	396.5	396.4
162.5°	404.1	404.0	403.9	404.0	404.2	404.4	404.7	404.9	404.7	404.4	404.2
165°	410.6	410.6	410.6	410.7	411.0	411.2	411.4	411.6	411.4	411.2	411.0
167.5°	416.2	416.1	416.1	416.2	416.5	416.8	417.1	417.4	417.1	416.8	416.5
170°	420.7	420.7	420.7	420.9	421.2	421.5	421.8	422.1	421.8	421.5	421.2
172.5°	424.5	424.5	424.5	424.6	424.9	425.2	425.5	425.8	425.5	425.2	424.9
175°	426.8	426.8	426.8	427.0	427.3	427.6	427.9	428.2	427.9	427.6	427.3
177.5°	428.2	428.2	428.2	428.3	428.6	428.9	429.2	429.5	429.2	428.9	428.6
180°	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2



TEST NUMBER: P832114

CATALOG NUMBER: S123RDIP-S340D365U950-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8	1059.8
2.5°	1025.9	1013.5	1001.2	992.3	983.3	972.3	961.2	960.8	960.3	952.1	943.8
5°	965.1	943.6	922.1	901.0	879.9	858.9	837.8	833.0	828.2	821.0	813.9
7.5°	911.2	876.9	842.6	815.6	788.7	767.6	746.5	732.2	717.8	706.8	695.7
10°	853.4	810.8	768.3	735.7	703.1	680.3	657.4	640.9	624.4	616.6	608.8
12.5°	793.5	747.2	700.9	669.0	637.0	609.6	582.3	567.3	552.3	541.4	530.6
15°	738.3	688.5	638.8	604.9	571.0	545.3	519.7	504.7	489.7	478.9	468.0
17.5°	684.8	634.6	584.4	550.1	515.8	492.5	469.3	454.7	440.2	433.4	426.7
20°	636.2	585.5	534.9	502.5	470.2	447.4	424.5	416.7	408.9	402.6	396.3
22.5°	587.9	539.3	490.6	459.5	428.4	411.9	395.4	389.1	382.8	378.0	373.3
25°	547.5	499.1	450.6	423.5	396.3	383.5	370.7	366.5	362.4	357.6	352.8
27.5°	506.7	460.6	414.5	392.8	371.1	360.7	350.2	345.0	339.8	335.9	332.0
30°	470.6	428.0	385.4	367.4	349.4	340.2	331.1	325.5	319.8	316.1	312.4
32.5°	435.8	398.0	360.2	344.8	329.4	320.5	311.6	306.1	300.7	296.4	292.0
35°	403.7	370.9	338.1	323.9	309.8	300.9	292.0	286.6	281.1	276.8	272.5
37.5°	375.4	345.7	315.9	302.7	289.4	281.6	273.8	268.1	262.5	257.9	253.3
40°	348.9	322.6	296.4	283.5	270.7	262.2	253.8	248.8	243.8	239.6	235.5
42.5°	325.5	301.3	277.2	264.6	252.0	244.0	236.0	230.1	224.2	221.8	219.4
45°	300.7	279.4	258.1	245.9	233.8	225.3	216.8	211.8	206.8	204.7	202.5
47.5°	279.0	259.2	239.4	227.5	215.5	207.9	200.3	196.4	192.5	189.5	186.4
50°	257.7	238.6	219.4	207.9	196.4	189.9	183.4	178.6	173.8	171.6	169.5
52.5°	237.3	219.9	202.5	190.8	179.0	172.7	166.4	162.3	158.2	153.6	149.0
55°	214.2	199.0	183.8	173.4	162.9	156.4	149.9	145.1	140.4	135.6	130.8
57.5°	195.1	180.1	165.1	155.8	146.4	140.1	133.8	128.6	123.4	119.5	115.6
60°	174.2	161.2	148.2	139.1	129.9	123.8	117.8	112.8	107.8	105.8	103.9
62.5°	154.7	142.5	130.4	122.3	114.3	108.4	102.5	99.3	96.0	94.7	93.4
65°	134.7	124.3	113.8	106.5	99.1	94.1	89.1	87.6	86.0	85.0	83.9
67.5°	116.0	107.1	98.2	91.7	85.2	81.7	78.2	76.5	74.7	73.4	72.1
70°	99.1	91.3	83.4	77.8	72.1	68.9	65.6	64.1	62.6	60.2	57.8
72.5°	80.8	74.7	68.7	64.3	60.0	57.1	54.3	51.3	48.2	46.1	43.9
75°	66.9	60.8	54.8	50.6	46.5	43.2	40.0	38.9	37.8	37.2	36.5
77.5°	51.3	46.1	40.8	37.6	34.3	32.8	31.3	30.6	30.0	29.8	29.5
80°	36.9	32.6	28.2	26.5	24.8	24.3	23.9	23.5	23.0	22.8	22.6
82.5°	23.0	20.9	18.7	18.3	17.8	17.6	17.4	17.2	16.9	16.7	16.5
85°	13.5	12.6	11.7	11.5	11.3	11.1	10.9	10.9	10.9	10.9	10.9
87.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.4	5.2
90°	3.3	4.2	5.2	6.1	7.1	8.1	8.4	8.7	9.0	9.3	9.5
92.5°	11.9	12.4	12.8	13.3	13.7	14.2	14.4	14.6	14.8	15.1	15.1
95°	22.0	22.6	23.1	23.7	24.3	24.9	25.2	25.5	25.8	26.1	26.3
97.5°	34.2	34.6	35.1	35.5	36.0	36.4	36.8	37.2	37.5	37.9	38.1
100°	47.6	48.1	48.4	48.8	49.2	49.6	49.8	50.0	50.2	50.5	50.6
102.5°	61.9	62.3	62.8	63.3	63.9	64.4	64.6	64.8	65.1	65.3	65.4
105°	76.5	76.9	77.5	78.2	78.9	79.6	79.6	79.6	79.6	79.6	79.6
107.5°	93.7	93.9	94.2	94.5	94.8	95.1	95.3	95.5	95.7	96.0	96.0
110°	110.2	110.3	110.5	110.6	110.8	110.9	111.2	111.5	111.8	112.1	112.2



TEST NUMBER: P832114

CATALOG NUMBER: S123RDIP-S340D365U950-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	126.7	126.8	126.8	126.8	126.8	126.8	127.1	127.5	127.9	128.3	128.4
115°	144.2	144.2	144.1	143.9	143.8	143.6	143.7	143.8	143.8	143.9	143.9
117.5°	160.8	160.7	160.6	160.4	160.3	160.1	160.1	160.1	160.1	160.1	160.0
120°	178.1	178.2	177.8	177.4	177.0	176.7	176.6	176.5	176.4	176.4	176.2
122.5°	194.0	194.1	194.0	193.8	193.7	193.5	193.3	193.1	192.8	192.6	192.4
125°	210.6	210.6	210.5	210.3	210.2	210.0	209.7	209.4	209.1	208.8	208.5
127.5°	227.0	227.2	227.0	226.9	226.7	226.6	226.1	225.7	225.2	224.8	224.4
130°	243.1	243.3	243.1	242.8	242.6	242.4	242.1	241.8	241.5	241.2	240.8
132.5°	258.6	258.8	258.7	258.5	258.4	258.2	257.9	257.5	257.1	256.7	256.4
135°	273.9	274.1	274.0	273.9	273.8	273.8	273.5	273.2	272.9	272.6	272.3
137.5°	288.1	288.4	288.6	288.8	289.0	289.3	288.9	288.5	288.1	287.8	287.5
140°	303.2	303.5	303.5	303.6	303.7	303.8	303.7	303.6	303.5	303.5	303.2
142.5°	317.1	317.3	317.5	317.6	317.8	317.9	317.8	317.8	317.7	317.6	317.4
145°	330.7	330.8	331.1	331.3	331.5	331.7	331.7	331.6	331.5	331.4	331.3
147.5°	343.7	344.0	344.2	344.4	344.7	344.9	344.9	344.9	344.9	344.9	344.7
150°	356.3	356.4	356.6	356.7	356.9	357.0	357.0	357.0	357.0	357.0	356.8
152.5°	367.4	367.5	367.6	367.7	367.7	367.8	368.0	368.1	368.3	368.4	368.3
155°	377.9	378.0	378.0	378.1	378.2	378.3	378.6	378.9	379.2	379.5	379.4
157.5°	387.4	387.4	387.5	387.6	387.6	387.7	388.0	388.3	388.6	388.9	388.8
160°	396.2	396.1	396.1	396.1	396.1	396.1	396.5	396.9	397.3	397.6	397.7
162.5°	404.0	403.9	404.0	404.1	404.2	404.2	404.6	405.0	405.3	405.7	405.6
165°	410.7	410.6	410.6	410.6	410.6	410.6	411.1	411.5	412.0	412.4	412.4
167.5°	416.2	416.1	416.1	416.2	416.3	416.4	416.8	417.3	417.7	418.2	418.2
170°	420.9	420.7	420.7	420.7	420.7	420.7	421.3	421.8	422.3	422.8	422.8
172.5°	424.6	424.5	424.5	424.5	424.5	424.5	424.9	425.4	425.8	426.3	426.2
175°	427.0	426.8	426.8	426.8	426.8	426.8	427.3	427.7	428.2	428.6	428.6
177.5°	428.3	428.2	428.2	428.2	428.2	428.2	428.6	429.1	429.5	430.0	429.9
180°	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2



TEST NUMBER: P832114

CATALOG NUMBER: S123RDIP-S340D365U950-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1059.8	1059.8	1059.8	1059.8
2.5°	941.6	939.5	938.6	937.7
5°	807.1	800.4	798.9	797.4
7.5°	692.9	690.0	680.7	671.4
10°	600.1	591.4	587.5	583.6
12.5°	522.5	514.5	513.2	511.9
15°	462.3	456.7	454.7	452.8
17.5°	422.8	418.9	416.5	414.1
20°	393.5	390.6	388.9	387.2
22.5°	371.1	368.9	367.6	366.3
25°	349.6	346.3	345.2	344.1
27.5°	329.2	326.3	325.2	324.2
30°	310.0	307.6	306.1	304.6
32.5°	289.2	286.4	285.5	284.6
35°	270.7	269.0	268.1	267.2
37.5°	251.2	249.0	247.7	246.4
40°	234.4	233.3	232.7	232.0
42.5°	217.5	215.5	215.3	215.1
45°	200.5	198.6	198.1	197.7
47.5°	184.7	182.9	182.7	182.5
50°	167.1	164.7	162.9	161.2
52.5°	146.9	144.7	143.2	141.7
55°	128.4	126.0	124.7	123.4
57.5°	114.5	113.4	112.8	112.1
60°	103.2	102.5	102.1	101.7
62.5°	92.8	92.1	92.1	92.1
65°	83.2	82.6	81.9	81.3
67.5°	70.8	69.5	69.3	69.1
70°	55.8	53.9	53.7	53.4
72.5°	43.7	43.5	43.0	42.6
75°	36.1	35.6	35.6	35.6
77.5°	29.1	28.7	28.7	28.7
80°	22.4	22.2	22.4	22.6
82.5°	16.5	16.5	16.3	16.1
85°	10.6	10.4	10.4	10.4
87.5°	5.2	5.2	5.2	5.2
90°	9.7	9.8	10.0	10.1
92.5°	14.9	14.8	14.6	14.5
95°	26.3	26.3	26.3	26.3
97.5°	38.0	37.9	37.8	37.8
100°	50.8	50.9	51.1	51.2
102.5°	65.3	65.2	65.1	65.1
105°	79.8	79.9	80.1	80.2
107.5°	96.0	95.9	95.8	95.7
110°	112.0	111.9	111.7	111.6



TEST NUMBER: P832114

CATALOG NUMBER: S123RDIP-S340D365U950-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	128.4	128.4	128.4	128.4
115°	143.8	143.8	143.7	143.6
117.5°	159.8	159.6	159.4	159.1
120°	176.1	175.9	175.8	175.6
122.5°	192.2	191.9	191.7	191.5
125°	208.2	207.9	207.6	207.3
127.5°	224.1	223.8	223.5	223.2
130°	240.3	239.7	239.2	238.7
132.5°	256.0	255.6	255.2	254.9
135°	272.2	272.0	271.9	271.7
137.5°	287.2	287.0	286.8	286.6
140°	302.6	302.1	301.6	301.1
142.5°	317.0	316.6	316.3	315.9
145°	331.0	330.7	330.4	330.1
147.5°	344.2	343.8	343.3	342.9
150°	356.4	355.9	355.5	355.0
152.5°	367.9	367.6	367.2	366.8
155°	378.8	378.3	377.8	377.3
157.5°	388.4	387.9	387.5	387.0
160°	397.4	397.1	396.8	396.5
162.5°	405.1	404.6	404.1	403.6
165°	411.9	411.3	410.8	410.3
167.5°	417.7	417.3	416.8	416.4
170°	422.3	421.8	421.3	420.7
172.5°	425.7	425.2	424.6	424.1
175°	428.0	427.5	427.0	426.5
177.5°	429.4	428.9	428.3	427.8
180°	429.2	429.2	429.2	429.2



TEST NUMBER: P832114

CATALOG NUMBER: S123RDIP-S340D365U950-4F0-1E-UDD-G1

**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	9.59	10.43	10.52	11.37	12.58	14.25	15.09	15.18	16.03	17.25
	3H	10.81	11.56	11.75	12.51	13.75	15.75	16.50	16.70	17.45	18.69
	4H	11.19	11.90	12.15	12.86	14.10	16.24	16.95	17.20	17.91	19.16
	6H	11.47	12.13	12.44	13.09	14.35	16.55	17.21	17.52	18.17	19.43
	8H	11.56	12.18	12.54	13.16	14.42	16.63	17.25	17.61	18.23	19.49
	12H	11.61	12.20	12.59	13.18	14.46	16.67	17.26	17.65	18.23	19.51
4H	2H	10.31	11.02	11.28	11.98	13.23	14.25	14.96	15.21	15.91	17.16
	3H	11.68	12.27	12.66	13.26	14.52	15.91	16.50	16.88	17.48	18.74
	4H	12.14	12.68	13.12	13.65	14.94	16.52	17.05	17.50	18.03	19.32
	6H	12.51	12.97	13.50	13.97	15.26	16.95	17.41	17.95	18.42	19.70
	8H	12.63	13.06	13.63	14.06	15.36	17.08	17.51	18.08	18.51	19.81
	12H	12.71	13.10	13.72	14.11	15.41	17.15	17.53	18.16	18.55	19.85
8H	4H	12.45	12.88	13.45	13.88	15.18	16.48	16.91	17.48	17.91	19.21
	6H	12.92	13.27	13.94	14.31	15.61	16.98	17.33	18.00	18.37	19.67
	8H	13.11	13.42	14.14	14.45	15.76	17.17	17.48	18.19	18.50	19.82
	12H	13.25	13.53	14.28	14.55	15.91	17.28	17.56	18.31	18.57	19.93
12H	4H	12.47	12.85	13.48	13.86	15.17	16.43	16.82	17.45	17.83	19.14
	6H	12.98	13.29	14.00	14.31	15.63	16.95	17.27	17.98	18.29	19.61
	8H	13.20	13.47	14.23	14.49	15.85	17.15	17.42	18.18	18.44	19.80