

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: P832119

Luminaire Tested: S123RDIP-S340D585U835-4F0-1E-UDD-G

Issue Date: 05/03/2024

**Test Information**

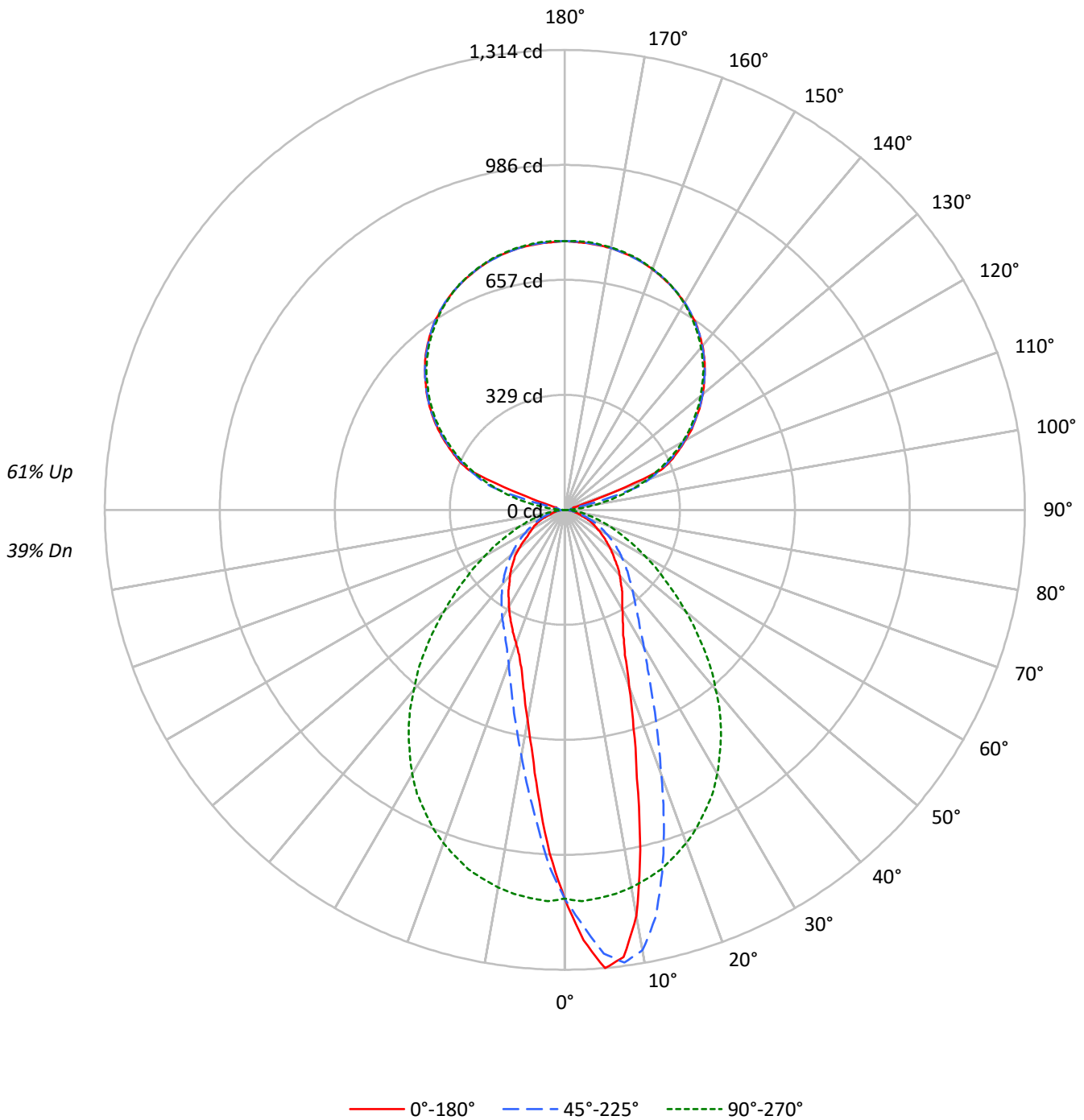
Test Method: LM-79-2019  
Report Number: P832119  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S340D585U835-4F0-1E-UDD-G  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 585 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3814.8 lumens  
Efficiency: N/A  
Efficacy: 138.2 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-Indirect  
  
Input Watts (W): 27.6  
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

TEST NUMBER: P832119  
CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

### Luminous Intensity Polar Plot





TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				
1	96	92	88	85	87	84	81	78	68	66	64	54	53	52	41	40	40	34				
2	88	81	75	70	80	74	69	65	61	57	54	48	46	44	37	36	34	29				
3	81	72	65	59	73	66	60	55	54	50	46	43	41	38	34	32	30	26				
4	74	64	57	51	67	59	52	47	49	44	40	39	36	33	30	28	27	23				
5	68	57	50	44	62	53	46	41	44	39	35	36	32	29	28	26	24	20				
6	63	52	44	39	57	48	41	36	40	35	31	32	29	26	26	23	21	18				
7	58	47	39	34	53	43	37	32	36	31	28	30	26	23	24	21	19	17				
8	54	43	35	30	50	40	33	29	33	28	25	27	24	21	22	19	18	15				
9	51	39	32	27	46	36	30	26	31	26	22	25	22	19	20	18	16	14				
10	48	36	29	25	43	33	27	23	28	24	20	24	20	18	19	17	15	13				

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

	0°	45°	90°	135°	180°
0°	11958	11958	11958	11958	11958
5°	14199	13746	12034	9728	9031
10°	12865	13962	11973	7794	6686
15°	8857	11972	11847	6370	5289
20°	6161	9216	11609	5371	4648
25°	4696	7024	11263	4774	4284
30°	4088	5615	10829	4432	3969
35°	3753	4737	10217	4144	3681
40°	3424	4231	9414	3863	3417
45°	3092	3870	8549	3596	3154
50°	2807	3570	7529	3332	2830
55°	2539	3278	6548	3078	2428
60°	2275	2982	5688	2794	2295
65°	2099	2646	4895	2511	2170
70°	1706	2285	4271	2272	1762
75°	1497	1817	3618	1884	1551
80°	1358	1537	2963	1581	1469
85°	1235	1346	2248	1433	1346

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 9021 cd/sqm



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.3	2.7
10°-20°	234.3	6.1
20°-30°	268.8	7.0
30°-40°	265.0	6.9
40°-50°	233.7	6.1
50°-60°	179.8	4.7
60°-70°	118.2	3.1
70°-80°	57.4	1.5
80°-90°	16.0	0.4
90°-100°	27.1	0.7
100°-110°	130.8	3.4
110°-120°	320.7	8.4
120°-130°	407.2	10.7
130°-140°	435.0	11.4
140°-150°	406.7	10.7
150°-160°	328.1	8.6
160°-170°	211.7	5.6
170°-180°	73.0	1.9
0°-30°	604.4	15.8
0°-40°	869.4	22.8
0°-60°	1282.9	33.6
0°-90°	1474.5	38.7
90°-120°	478.6	12.5
90°-150°	1727.5	45.3
90°-180°	2340.0	61.3
0°-180°	3814.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1111	1111	1111	1111	1111	
5°	1314	1272	1114	900	836	120
15°	795	1074	1063	572	475	224
25°	395	591	948	402	361	187
35°	286	360	778	315	280	178
45°	203	254	562	236	207	158
55°	135	175	349	164	129	121
65°	82	104	192	99	85	81
75°	36	44	87	45	37	39
85°	10	11	18	12	11	11
90°	17	14	1	14	17	8
95°	22	18	35	18	22	18
105°	25	125	170	125	25	52
115°	335	327	319	327	335	315
125°	459	456	449	456	459	410
135°	565	565	560	565	565	436
145°	652	651	646	651	652	407
155°	710	711	711	711	710	328
165°	748	748	750	748	748	211
175°	765	765	768	765	765	73
180°	768	768	768	768	768	



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9
2.5°	1231.2	1227.3	1223.4	1222.3	1221.2	1217.5	1213.9	1205.7	1197.5	1189.0	1180.6
5°	1314.1	1314.5	1315.0	1313.8	1312.7	1307.9	1303.1	1293.1	1283.1	1272.2	1261.2
7.5°	1288.6	1295.9	1303.1	1304.5	1305.9	1309.5	1313.2	1310.9	1308.6	1304.5	1300.4
10°	1177.0	1176.5	1176.1	1184.3	1192.5	1216.8	1241.2	1253.7	1266.2	1277.4	1288.6
12.5°	994.8	995.5	996.1	1023.0	1049.9	1072.9	1095.9	1127.8	1159.7	1194.1	1228.4
15°	794.8	806.0	817.1	841.1	865.0	899.6	934.2	977.0	1019.8	1074.3	1128.7
17.5°	652.7	657.5	662.3	685.3	708.3	741.1	773.9	822.4	870.9	941.0	1011.2
20°	537.9	542.3	546.6	563.2	579.8	611.3	642.7	688.9	735.2	804.6	874.1
22.5°	449.1	457.5	466.0	477.1	488.3	511.1	533.8	581.0	628.1	691.4	754.7
25°	395.4	399.2	403.1	412.7	422.2	444.1	466.0	497.2	528.4	591.4	654.5
27.5°	358.9	360.1	361.2	368.3	375.3	389.4	403.6	432.5	461.4	513.3	565.3
30°	328.9	330.9	333.0	338.4	343.9	354.1	364.4	384.9	405.4	451.8	498.3
32.5°	305.6	306.8	307.9	312.5	317.0	324.5	332.0	348.2	364.4	399.9	435.4
35°	285.6	285.8	286.0	289.5	292.9	300.2	307.5	320.9	334.3	360.5	386.7
37.5°	262.8	264.4	266.0	268.5	271.0	277.4	283.8	294.7	305.6	327.3	348.9
40°	243.7	245.1	246.4	249.4	252.3	257.3	262.4	272.4	282.4	301.1	319.8
42.5°	224.6	225.5	226.4	229.3	232.3	238.4	244.6	252.6	260.5	276.0	291.5
45°	203.1	205.4	207.7	210.9	214.1	219.3	224.6	232.8	241.0	254.2	267.4
47.5°	185.4	186.5	187.7	190.4	193.1	199.5	205.9	213.2	220.5	232.8	245.1
50°	167.6	168.1	168.5	171.0	173.5	179.2	184.9	193.4	201.8	213.2	224.6
52.5°	150.8	151.9	153.0	155.5	158.1	161.9	165.8	174.5	183.1	194.3	205.4
55°	135.3	136.0	136.6	138.5	140.3	144.8	149.4	156.9	164.4	174.7	184.9
57.5°	120.7	121.6	122.5	123.9	125.3	129.4	133.5	140.1	146.7	156.9	167.2
60°	105.7	106.8	107.9	109.5	111.1	114.3	117.5	123.4	129.4	138.5	147.6
62.5°	94.7	95.0	95.2	96.6	97.9	100.2	102.5	107.3	112.0	121.2	130.3
65°	82.4	83.1	83.8	84.5	85.2	87.0	88.8	92.9	97.0	103.9	110.7
67.5°	69.7	70.4	71.1	72.2	73.3	74.9	76.5	79.3	82.0	88.4	94.7
70°	54.2	54.2	54.2	56.0	57.8	60.6	63.3	65.4	67.4	72.6	77.9
72.5°	44.2	44.4	44.6	44.9	45.1	46.7	48.3	51.7	55.1	58.3	61.5
75°	36.0	36.2	36.4	36.7	36.9	37.3	37.8	38.9	40.1	43.7	47.4
77.5°	28.7	28.9	29.2	29.4	29.6	30.1	30.5	31.0	31.4	32.8	34.2
80°	21.9	22.1	22.3	22.5	22.8	23.0	23.2	23.7	24.1	24.8	25.5
82.5°	15.9	15.9	15.9	15.9	15.9	16.4	16.9	16.9	16.9	17.3	17.8
85°	10.0	10.0	10.0	10.2	10.5	10.5	10.5	10.7	10.9	10.9	10.9
87.5°	4.6	4.3	4.1	4.3	4.6	4.6	4.6	4.8	5.0	5.0	5.0
90°	17.1	16.9	16.6	16.4	16.1	15.7	15.2	14.7	14.2	13.7	12.0
92.5°	19.4	19.3	19.1	19.0	18.9	18.4	17.5	16.6	15.7	14.8	13.7
95°	21.7	21.7	21.7	21.7	21.7	21.2	20.3	19.5	18.6	17.7	16.3
97.5°	23.4	23.3	23.1	23.0	22.9	22.3	21.3	20.3	19.3	18.3	24.7
100°	24.0	23.8	23.7	23.6	23.4	22.9	21.9	20.8	19.8	18.8	38.6
102.5°	24.5	24.3	24.0	23.8	23.5	25.5	29.7	33.8	38.0	42.2	64.3
105°	25.1	24.8	24.6	24.3	24.1	35.2	57.6	80.0	102.5	124.9	136.3
107.5°	59.3	75.9	92.5	109.1	125.7	143.8	163.3	182.8	202.3	221.9	220.0
110°	156.8	175.0	193.1	211.2	229.3	240.5	244.7	248.9	253.0	257.2	255.8



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	297.2	297.4	297.7	297.9	298.2	297.7	296.6	295.4	294.3	293.2	291.8
115°	335.4	334.9	334.4	333.8	333.3	332.5	331.2	329.9	328.7	327.4	326.2
117.5°	366.2	366.0	365.9	365.8	365.7	365.1	364.1	363.1	362.0	361.0	360.4
120°	398.1	398.1	398.1	398.1	398.1	397.6	396.6	395.6	394.6	393.5	393.2
122.5°	429.5	429.4	429.2	429.1	429.0	428.6	428.0	427.3	426.7	426.1	425.5
125°	458.6	458.3	458.1	457.8	457.6	457.3	457.0	456.8	456.5	456.3	455.8
127.5°	487.1	487.3	487.6	487.8	488.1	488.0	487.7	487.3	486.9	486.5	485.9
130°	514.5	514.7	515.0	515.2	515.5	515.3	514.8	514.3	513.8	513.3	512.8
132.5°	539.6	539.9	540.3	540.7	541.1	541.0	540.5	540.0	539.5	539.0	538.6
135°	565.2	565.6	566.0	566.4	566.7	566.7	566.4	566.0	565.6	565.2	564.7
137.5°	589.7	590.0	590.3	590.5	590.8	590.6	589.9	589.3	588.7	588.0	587.8
140°	611.4	611.7	611.9	612.2	612.4	612.3	611.8	611.3	610.8	610.3	609.9
142.5°	631.4	631.8	632.1	632.5	632.9	632.9	632.5	632.1	631.8	631.4	631.0
145°	651.9	651.9	651.9	651.9	651.9	651.8	651.5	651.3	651.0	650.8	650.5
147.5°	666.7	667.4	668.0	668.6	669.3	669.5	669.2	669.0	668.7	668.5	668.2
150°	683.9	684.2	684.6	685.0	685.4	685.4	685.2	684.9	684.7	684.4	684.2
152.5°	697.5	698.2	698.8	699.4	700.1	700.1	699.6	699.1	698.6	698.1	698.0
155°	710.1	710.9	711.6	712.4	713.1	713.2	712.6	711.9	711.3	710.7	710.5
157.5°	720.9	721.9	723.0	724.0	725.0	725.1	724.4	723.6	722.8	722.1	722.2
160°	731.2	732.1	733.0	733.9	734.7	734.8	734.0	733.3	732.5	731.8	731.9
162.5°	740.9	741.7	742.4	743.2	743.9	743.9	743.0	742.1	741.2	740.3	740.4
165°	748.3	749.2	750.1	751.0	751.9	751.8	750.8	749.8	748.8	747.7	747.9
167.5°	754.0	755.0	756.0	757.1	758.1	758.1	757.1	756.0	755.0	754.0	754.0
170°	759.1	760.2	761.2	762.2	763.2	763.2	762.2	761.2	760.2	759.1	759.1
172.5°	762.0	763.1	764.3	765.4	766.6	766.6	765.6	764.6	763.6	762.6	762.4
175°	764.8	765.9	766.9	767.9	768.9	769.0	768.1	767.2	766.3	765.4	765.3
177.5°	765.4	766.7	768.0	769.2	770.5	770.6	769.6	768.6	767.6	766.6	766.4
180°	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9
2.5°	1179.5	1178.3	1167.4	1156.5	1145.8	1135.1	1127.1	1119.1	1105.7	1092.3	1083.8
5°	1252.6	1243.9	1226.6	1209.3	1183.4	1157.4	1135.5	1113.7	1085.9	1058.1	1034.9
7.5°	1293.3	1286.3	1265.3	1244.4	1210.0	1175.6	1141.4	1107.3	1066.3	1025.3	990.2
10°	1294.5	1300.4	1283.1	1265.8	1227.1	1188.4	1141.9	1095.4	1040.3	985.2	939.9
12.5°	1254.0	1279.5	1275.8	1272.2	1232.8	1193.4	1136.9	1080.4	1012.8	945.1	888.4
15°	1178.1	1227.5	1242.1	1256.7	1224.1	1191.5	1127.3	1063.1	983.6	904.1	839.0
17.5°	1080.4	1149.6	1188.1	1226.6	1202.9	1179.3	1108.9	1038.5	949.0	859.5	788.7
20°	964.7	1055.4	1115.7	1176.1	1167.4	1158.8	1086.1	1013.5	916.9	820.3	743.6
22.5°	850.4	946.0	1029.4	1112.7	1121.6	1130.5	1057.2	983.8	878.2	772.5	694.4
25°	751.8	849.0	948.3	1047.6	1067.7	1087.7	1018.0	948.3	838.8	729.2	651.6
27.5°	657.7	750.2	859.5	968.8	1005.3	1041.7	977.9	914.2	800.1	686.0	608.5
30°	581.0	663.6	775.2	886.8	937.6	988.4	929.9	871.3	758.2	645.0	569.1
32.5°	509.5	583.5	695.5	807.6	866.6	925.5	875.0	824.4	715.6	606.7	531.8
35°	453.0	519.3	623.8	728.3	794.4	860.4	819.0	777.5	671.2	564.8	494.0
37.5°	404.5	460.0	558.2	656.4	726.5	796.6	762.0	727.4	627.4	527.5	460.5
40°	364.4	409.0	500.4	591.7	660.5	729.2	699.6	670.0	580.5	491.0	428.4
42.5°	330.0	368.5	450.5	532.5	595.5	658.6	639.0	619.5	538.4	457.3	399.2
45°	299.7	332.0	404.2	476.4	534.5	592.6	577.1	561.6	491.7	421.8	368.5
47.5°	272.8	300.6	365.1	429.5	481.7	533.8	519.5	505.1	447.3	389.4	340.9
50°	248.2	271.9	325.7	379.4	426.3	473.2	461.4	449.6	401.7	353.9	312.0
52.5°	225.0	244.6	292.9	341.2	379.0	416.8	407.7	398.5	361.7	324.8	286.7
55°	202.9	220.9	261.7	302.4	334.8	367.1	358.0	348.9	320.2	291.5	258.0
57.5°	182.9	198.6	231.6	264.6	290.4	316.1	311.8	307.5	283.5	259.6	232.1
60°	161.7	175.8	204.3	232.8	253.5	274.2	269.2	264.2	247.1	230.0	206.3
62.5°	142.8	155.3	178.1	200.9	217.7	234.6	230.9	227.3	214.3	201.3	181.7
65°	123.0	135.3	153.7	172.2	185.4	198.6	195.4	192.2	182.4	172.6	156.9
67.5°	105.0	115.2	131.2	147.1	156.0	164.9	163.1	161.2	153.7	146.2	133.9
70°	86.8	95.7	108.9	122.1	128.2	134.4	135.1	135.7	128.9	122.1	113.0
72.5°	68.6	75.6	87.9	100.2	105.0	109.8	109.5	109.3	105.2	101.1	92.9
75°	52.6	57.8	67.4	77.0	81.1	85.2	86.1	87.0	83.1	79.3	74.7
77.5°	37.8	41.4	48.7	56.0	60.6	65.1	65.6	66.0	64.2	62.4	58.1
80°	26.6	27.8	32.3	36.9	41.7	46.5	47.1	47.8	46.0	44.2	41.4
82.5°	18.4	19.1	20.7	22.3	26.2	30.1	31.0	31.9	31.0	30.1	27.1
85°	11.2	11.4	12.1	12.8	14.6	16.4	17.3	18.2	17.8	17.3	15.7
87.5°	5.0	5.0	5.2	5.5	5.9	6.4	7.5	8.7	8.0	7.3	6.6
90°	10.4	8.7	7.1	5.6	4.4	3.1	1.8	0.6	1.8	3.1	4.4
92.5°	12.5	11.4	10.3	10.1	10.8	11.6	12.4	13.1	12.4	11.6	10.8
95°	14.9	13.5	12.1	14.0	19.2	24.4	29.6	34.8	29.6	24.4	19.2
97.5°	31.2	37.6	44.1	49.1	52.7	56.2	59.8	63.3	59.8	56.2	52.7
100°	58.4	78.1	97.9	106.5	104.0	101.5	98.9	96.4	98.9	101.5	104.0
102.5°	86.3	108.4	130.4	140.6	139.0	137.3	135.7	134.0	135.7	137.3	139.0
105°	147.7	159.1	170.5	175.5	174.1	172.8	171.4	170.0	171.4	172.8	174.1
107.5°	218.1	216.2	214.3	212.7	211.6	210.5	209.3	208.2	209.3	210.5	211.6
110°	254.4	253.0	251.7	250.4	249.4	248.4	247.4	246.4	247.4	248.4	249.4





TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	290.4	289.0	287.6	286.4	285.6	284.7	283.8	282.9	283.8	284.7	285.6
115°	325.1	324.0	322.8	321.9	321.1	320.3	319.6	318.8	319.6	320.3	321.1
117.5°	359.8	359.1	358.5	357.7	356.9	356.0	355.1	354.2	355.1	356.0	356.9
120°	392.8	392.4	392.0	391.3	390.1	389.0	387.8	386.7	387.8	389.0	390.1
122.5°	425.0	424.5	424.0	423.3	422.4	421.6	420.7	419.8	420.7	421.6	422.4
125°	455.3	454.8	454.3	453.5	452.5	451.5	450.5	449.4	450.5	451.5	452.5
127.5°	485.2	484.6	484.0	483.2	482.1	481.1	480.1	479.1	480.1	481.1	482.1
130°	512.3	511.8	511.3	510.5	509.5	508.5	507.5	506.5	507.5	508.5	509.5
132.5°	538.2	537.8	537.5	536.8	535.8	534.7	533.7	532.7	533.7	534.7	535.8
135°	564.2	563.7	563.2	562.6	561.8	561.0	560.3	559.5	560.3	561.0	561.8
137.5°	587.5	587.3	587.0	586.4	585.4	584.4	583.3	582.3	583.3	584.4	585.4
140°	609.5	609.1	608.8	608.2	607.4	606.7	605.9	605.1	605.9	606.7	607.4
142.5°	630.6	630.2	629.9	629.3	628.5	627.8	627.0	626.3	627.0	627.8	628.5
145°	650.3	650.0	649.8	649.2	648.3	647.4	646.5	645.6	646.5	647.4	648.3
147.5°	667.9	667.7	667.4	667.0	666.4	665.7	665.1	664.5	665.1	665.7	666.4
150°	683.9	683.7	683.4	683.1	682.7	682.3	682.0	681.6	682.0	682.3	682.7
152.5°	697.9	697.7	697.6	697.5	697.4	697.2	697.1	697.0	697.1	697.2	697.4
155°	710.4	710.3	710.2	710.2	710.5	710.7	711.0	711.2	711.0	710.7	710.5
157.5°	722.3	722.5	722.6	722.6	722.6	722.6	722.6	722.6	722.6	722.6	722.6
160°	732.0	732.1	732.3	732.4	732.5	732.7	732.8	732.9	732.8	732.7	732.5
162.5°	740.6	740.7	740.8	741.1	741.5	741.8	742.2	742.6	742.2	741.8	741.5
165°	748.0	748.1	748.2	748.5	748.9	749.3	749.6	750.0	749.6	749.3	748.9
167.5°	754.0	754.0	754.0	754.3	754.8	755.3	755.8	756.3	755.8	755.3	754.8
170°	759.1	759.1	759.1	759.4	759.9	760.4	760.9	761.4	760.9	760.4	759.9
172.5°	762.3	762.2	762.1	762.3	762.9	763.6	764.2	764.8	764.2	763.6	762.9
175°	765.2	765.0	764.9	765.2	765.8	766.4	767.1	767.7	767.1	766.4	765.8
177.5°	766.3	766.2	766.1	766.3	766.9	767.6	768.2	768.8	768.2	767.6	766.9
180°	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9	1110.9
2.5°	1075.4	1062.4	1049.4	1040.1	1030.8	1019.1	1007.5	1007.1	1006.6	998.0	989.3
5°	1011.6	989.1	966.5	944.4	922.4	900.3	878.2	873.2	868.2	860.6	853.1
7.5°	955.2	919.2	883.2	854.9	826.7	804.6	782.5	767.5	752.5	740.8	729.2
10°	894.6	849.9	805.3	771.1	737.0	713.1	689.1	671.8	654.5	646.3	638.1
12.5°	831.7	783.2	734.7	701.2	667.7	639.0	610.3	594.6	578.9	567.5	556.1
15°	773.9	721.7	669.6	634.0	598.5	571.6	544.8	529.0	513.3	501.9	490.6
17.5°	717.8	665.2	612.6	576.6	540.7	516.3	491.9	476.7	461.4	454.3	447.3
20°	666.8	613.8	560.7	526.8	492.8	468.9	445.0	436.8	428.6	422.0	415.4
22.5°	616.3	565.3	514.2	481.7	449.1	431.8	414.5	407.9	401.3	396.3	391.3
25°	573.9	523.1	472.3	443.9	415.4	402.0	388.5	384.2	379.9	374.9	369.9
27.5°	531.1	482.8	434.5	411.8	389.0	378.1	367.1	361.7	356.2	352.1	348.0
30°	493.3	448.7	404.0	385.1	366.2	356.6	347.1	341.2	335.2	331.4	327.5
32.5°	456.9	417.2	377.6	361.4	345.3	335.9	326.6	320.9	315.2	310.6	306.1
35°	423.1	388.8	354.4	339.6	324.8	315.4	306.1	300.4	294.7	290.1	285.6
37.5°	393.5	362.3	331.1	317.2	303.4	295.2	287.0	281.0	275.1	270.3	265.5
40°	365.8	338.2	310.6	297.2	283.8	274.9	266.0	260.8	255.5	251.2	246.9
42.5°	341.2	315.9	290.6	277.4	264.2	255.8	247.3	241.2	235.0	232.5	230.0
45°	315.2	292.9	270.6	257.8	245.1	236.2	227.3	222.0	216.8	214.5	212.3
47.5°	292.4	271.7	251.0	238.4	225.9	217.9	210.0	205.9	201.8	198.6	195.4
50°	270.1	250.1	230.0	217.9	205.9	199.0	192.2	187.2	182.2	179.9	177.6
52.5°	248.7	230.5	212.3	200.0	187.7	181.1	174.5	170.1	165.8	161.0	156.2
55°	224.6	208.6	192.7	181.7	170.8	164.0	157.1	152.1	147.1	142.1	137.1
57.5°	204.5	188.8	173.1	163.3	153.5	146.9	140.3	134.8	129.4	125.3	121.2
60°	182.6	169.0	155.3	145.8	136.2	129.8	123.4	118.2	113.0	110.9	108.9
62.5°	162.2	149.4	136.6	128.2	119.8	113.6	107.5	104.1	100.7	99.3	97.9
65°	141.2	130.3	119.3	111.6	103.9	98.6	93.4	91.8	90.2	89.0	87.9
67.5°	121.6	112.3	102.9	96.1	89.3	85.6	82.0	80.2	78.3	77.0	75.6
70°	103.9	95.7	87.5	81.5	75.6	72.2	68.8	67.2	65.6	63.1	60.6
72.5°	84.7	78.3	72.0	67.4	62.9	59.9	56.9	53.7	50.6	48.3	46.0
75°	70.1	63.8	57.4	53.1	48.7	45.3	41.9	40.8	39.6	38.9	38.3
77.5°	53.7	48.3	42.8	39.4	36.0	34.4	32.8	32.1	31.4	31.2	31.0
80°	38.7	34.2	29.6	27.8	26.0	25.5	25.1	24.6	24.1	23.9	23.7
82.5°	24.1	21.9	19.6	19.1	18.7	18.4	18.2	18.0	17.8	17.5	17.3
85°	14.1	13.2	12.3	12.1	11.8	11.6	11.4	11.4	11.4	11.4	11.4
87.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.7	5.5
90°	5.6	7.1	8.7	10.4	12.0	13.7	14.2	14.7	15.2	15.7	16.1
92.5°	10.1	10.3	11.4	12.5	13.7	14.8	15.7	16.6	17.5	18.4	18.9
95°	14.0	12.1	13.5	14.9	16.3	17.7	18.6	19.5	20.3	21.2	21.7
97.5°	49.1	44.1	37.6	31.2	24.7	18.3	19.3	20.3	21.3	22.3	22.9
100°	106.5	97.9	78.1	58.4	38.6	18.8	19.8	20.8	21.9	22.9	23.4
102.5°	140.6	130.4	108.4	86.3	64.3	42.2	38.0	33.8	29.7	25.5	23.5
105°	175.5	170.5	159.1	147.7	136.3	124.9	102.5	80.0	57.6	35.2	24.1
107.5°	212.7	214.3	216.2	218.1	220.0	221.9	202.3	182.8	163.3	143.8	125.7
110°	250.4	251.7	253.0	254.4	255.8	257.2	253.0	248.9	244.7	240.5	229.3



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	286.4	287.6	289.0	290.4	291.8	293.2	294.3	295.4	296.6	297.7	298.2
115°	321.9	322.8	324.0	325.1	326.2	327.4	328.7	329.9	331.2	332.5	333.3
117.5°	357.7	358.5	359.1	359.8	360.4	361.0	362.0	363.1	364.1	365.1	365.7
120°	391.3	392.0	392.4	392.8	393.2	393.5	394.6	395.6	396.6	397.6	398.1
122.5°	423.3	424.0	424.5	425.0	425.5	426.1	426.7	427.3	428.0	428.6	429.0
125°	453.5	454.3	454.8	455.3	455.8	456.3	456.5	456.8	457.0	457.3	457.6
127.5°	483.2	484.0	484.6	485.2	485.9	486.5	486.9	487.3	487.7	488.0	488.1
130°	510.5	511.3	511.8	512.3	512.8	513.3	513.8	514.3	514.8	515.3	515.5
132.5°	536.8	537.5	537.8	538.2	538.6	539.0	539.5	540.0	540.5	541.0	541.1
135°	562.6	563.2	563.7	564.2	564.7	565.2	565.6	566.0	566.4	566.7	566.7
137.5°	586.4	587.0	587.3	587.5	587.8	588.0	588.7	589.3	589.9	590.6	590.8
140°	608.2	608.8	609.1	609.5	609.9	610.3	610.8	611.3	611.8	612.3	612.4
142.5°	629.3	629.9	630.2	630.6	631.0	631.4	631.8	632.1	632.5	632.9	632.9
145°	649.2	649.8	650.0	650.3	650.5	650.8	651.0	651.3	651.5	651.8	651.9
147.5°	667.0	667.4	667.7	667.9	668.2	668.5	668.7	669.0	669.2	669.5	669.3
150°	683.1	683.4	683.7	683.9	684.2	684.4	684.7	684.9	685.2	685.4	685.4
152.5°	697.5	697.6	697.7	697.9	698.0	698.1	698.6	699.1	699.6	700.1	700.1
155°	710.2	710.2	710.3	710.4	710.5	710.7	711.3	711.9	712.6	713.2	713.1
157.5°	722.6	722.6	722.5	722.3	722.2	722.1	722.8	723.6	724.4	725.1	725.0
160°	732.4	732.3	732.1	732.0	731.9	731.8	732.5	733.3	734.0	734.8	734.7
162.5°	741.1	740.8	740.7	740.6	740.4	740.3	741.2	742.1	743.0	743.9	743.9
165°	748.5	748.2	748.1	748.0	747.9	747.7	748.8	749.8	750.8	751.8	751.9
167.5°	754.3	754.0	754.0	754.0	754.0	754.0	755.0	756.0	757.1	758.1	758.1
170°	759.4	759.1	759.1	759.1	759.1	759.1	760.2	761.2	762.2	763.2	763.2
172.5°	762.3	762.1	762.2	762.3	762.4	762.6	763.6	764.6	765.6	766.6	766.6
175°	765.2	764.9	765.0	765.2	765.3	765.4	766.3	767.2	768.1	769.0	768.9
177.5°	766.3	766.1	766.2	766.3	766.4	766.6	767.6	768.6	769.6	770.6	770.5
180°	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1110.9	1110.9	1110.9	1110.9
2.5°	987.0	984.8	983.8	982.9
5°	846.1	839.0	837.4	835.8
7.5°	726.3	723.3	713.5	703.7
10°	629.0	619.9	615.8	611.7
12.5°	547.7	539.3	537.9	536.6
15°	484.6	478.7	476.7	474.6
17.5°	443.2	439.1	436.6	434.1
20°	412.4	409.5	407.7	405.8
22.5°	389.0	386.7	385.3	384.0
25°	366.4	363.0	361.9	360.7
27.5°	345.0	342.1	340.9	339.8
30°	325.0	322.5	320.9	319.3
32.5°	303.1	300.2	299.3	298.3
35°	283.8	281.9	281.0	280.1
37.5°	263.3	261.0	259.6	258.3
40°	245.7	244.6	243.9	243.2
42.5°	228.0	225.9	225.7	225.5
45°	210.2	208.2	207.7	207.2
47.5°	193.6	191.8	191.5	191.3
50°	175.1	172.6	170.8	169.0
52.5°	154.0	151.7	150.1	148.5
55°	134.6	132.1	130.7	129.4
57.5°	120.0	118.9	118.2	117.5
60°	108.2	107.5	107.0	106.6
62.5°	97.2	96.6	96.6	96.6
65°	87.2	86.5	85.9	85.2
67.5°	74.2	72.9	72.6	72.4
70°	58.5	56.5	56.3	56.0
72.5°	45.8	45.5	45.1	44.6
75°	37.8	37.3	37.3	37.3
77.5°	30.5	30.1	30.1	30.1
80°	23.5	23.2	23.5	23.7
82.5°	17.3	17.3	17.1	16.9
85°	11.2	10.9	10.9	10.9
87.5°	5.5	5.5	5.5	5.5
90°	16.4	16.6	16.9	17.1
92.5°	19.0	19.1	19.3	19.4
95°	21.7	21.7	21.7	21.7
97.5°	23.0	23.1	23.3	23.4
100°	23.6	23.7	23.8	24.0
102.5°	23.8	24.0	24.3	24.5
105°	24.3	24.6	24.8	25.1
107.5°	109.1	92.5	75.9	59.3
110°	211.2	193.1	175.0	156.8



TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-UDD-G

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	297.9	297.7	297.4	297.2
115°	333.8	334.4	334.9	335.4
117.5°	365.8	365.9	366.0	366.2
120°	398.1	398.1	398.1	398.1
122.5°	429.1	429.2	429.4	429.5
125°	457.8	458.1	458.3	458.6
127.5°	487.8	487.6	487.3	487.1
130°	515.2	515.0	514.7	514.5
132.5°	540.7	540.3	539.9	539.6
135°	566.4	566.0	565.6	565.2
137.5°	590.5	590.3	590.0	589.7
140°	612.2	611.9	611.7	611.4
142.5°	632.5	632.1	631.8	631.4
145°	651.9	651.9	651.9	651.9
147.5°	668.6	668.0	667.4	666.7
150°	685.0	684.6	684.2	683.9
152.5°	699.4	698.8	698.2	697.5
155°	712.4	711.6	710.9	710.1
157.5°	724.0	723.0	721.9	720.9
160°	733.9	733.0	732.1	731.2
162.5°	743.2	742.4	741.7	740.9
165°	751.0	750.1	749.2	748.3
167.5°	757.1	756.0	755.0	754.0
170°	762.2	761.2	760.2	759.1
172.5°	765.4	764.3	763.1	762.0
175°	767.9	766.9	765.9	764.8
177.5°	769.2	768.0	766.7	765.4
180°	767.7	767.7	767.7	767.7

TEST NUMBER: P832119

CATALOG NUMBER: S123RDIP-S340D585U835-4F0-1E-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	8.20	8.93	9.26	9.98	11.41	12.86	13.59	13.92	14.65	16.08
	3H	9.41	10.06	10.48	11.13	12.57	14.35	15.01	15.42	16.07	17.52
	4H	9.79	10.41	10.87	11.47	12.93	14.84	15.46	15.92	16.52	17.98
	6H	10.07	10.63	11.15	11.70	13.17	15.15	15.71	16.23	16.78	18.25
	8H	10.15	10.69	11.24	11.77	13.23	15.22	15.76	16.31	16.85	18.31
	12H	10.20	10.71	11.30	11.79	13.27	15.25	15.76	16.35	16.84	18.32
4H	2H	8.91	9.53	10.00	10.59	12.05	12.85	13.46	13.93	14.53	15.98
	3H	10.27	10.78	11.36	11.88	13.34	14.50	15.01	15.59	16.10	17.57
	4H	10.72	11.19	11.82	12.28	13.76	15.10	15.57	16.19	16.65	18.14
	6H	11.08	11.49	12.19	12.59	14.07	15.53	15.93	16.64	17.04	18.52
	8H	11.21	11.58	12.31	12.68	14.18	15.66	16.04	16.76	17.13	18.63
	12H	11.28	11.62	12.40	12.73	14.23	15.72	16.06	16.84	17.17	18.67
8H	4H	11.03	11.40	12.13	12.50	14.00	15.06	15.43	16.16	16.53	18.03
	6H	11.49	11.80	12.61	12.94	14.43	15.55	15.86	16.68	17.00	18.49
	8H	11.68	11.95	12.81	13.07	14.59	15.74	16.01	16.87	17.13	18.64
	12H	11.82	12.05	12.95	13.17	14.72	15.85	16.09	16.98	17.20	18.75
12H	4H	11.04	11.38	12.16	12.49	13.99	15.00	15.34	16.12	16.46	17.96
	6H	11.55	11.82	12.68	12.94	14.45	15.53	15.80	16.66	16.92	18.43
	8H	11.76	12.00	12.90	13.12	14.67	15.71	15.95	16.85	17.07	18.62