

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: CORELITE

Report Number: P853753

Luminaire Tested: SQ2-FA-050U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853753  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-050U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

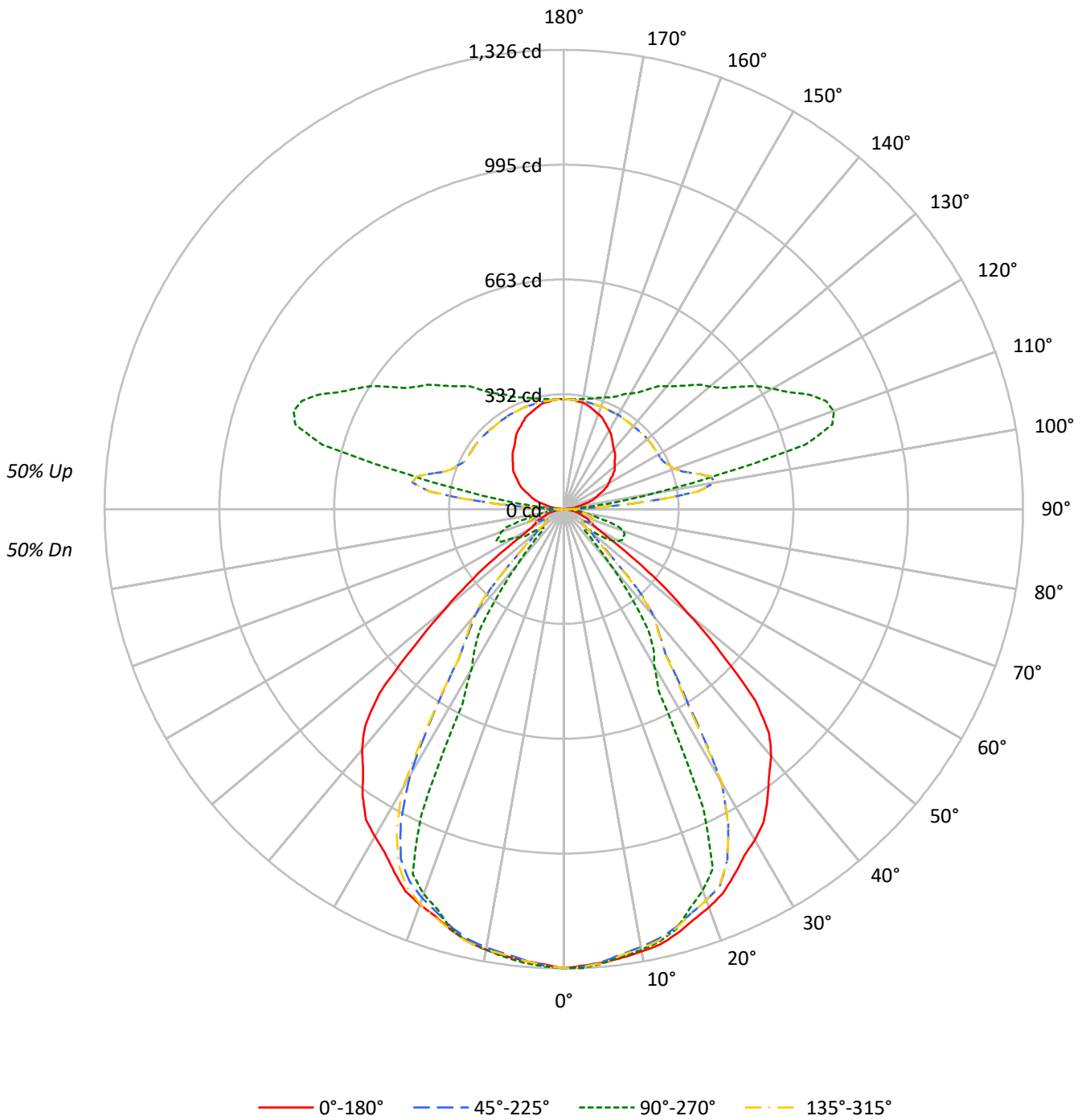
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3911.5 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 32.6  
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: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

**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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	99	95	91	88	91	88	85	82	74	72	70	62	61	59	51	50	49	44
2	91	84	79	74	84	78	73	69	67	63	60	56	54	52	46	45	43	39
3	84	75	69	63	77	70	64	60	60	56	52	51	48	45	42	40	39	35
4	78	68	61	55	72	63	57	52	55	50	46	46	43	40	39	37	35	31
5	72	61	54	48	66	57	51	46	50	45	41	43	39	36	36	33	31	28
6	67	56	48	43	62	52	46	41	46	40	37	39	35	33	33	31	28	26
7	62	51	44	39	58	48	41	37	42	37	33	36	32	30	31	28	26	24
8	58	47	40	35	54	44	38	33	39	34	30	34	30	27	29	26	24	22
9	54	43	36	31	51	41	34	30	36	31	27	31	28	25	27	24	22	20
10	51	40	33	29	48	38	32	28	33	29	25	29	25	23	25	23	21	19

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

	0°	90°	180°	270°
0°	21409	21409	21409	21409
5°	21297	21329	21216	21313
10°	21264	21182	21182	21182
15°	21195	20978	21028	20978
20°	21031	20137	20876	20326
25°	20754	16995	20612	17352
30°	20564	9751	20340	9881
35°	20203	8377	19947	8259
40°	19644	4405	19096	4363
45°	17856	1895	17217	1895
50°	11781	2286	11178	2135
55°	6587	4222	6249	3828
60°	3552	5942	3488	5328
65°	3133	7221	3286	8214
70°	2927	8639	2785	9111
75°	2745	7424	2807	7673
80°	2325	5300	2325	5579
85°	2038	2964	1853	3520

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17856 cd/sqm



TEST NUMBER: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.8	3.2
10°-20°	354.0	9.1
20°-30°	482.7	12.3
30°-40°	405.6	10.4
40°-50°	230.4	5.9
50°-60°	122.2	3.1
60°-70°	112.5	2.9
70°-80°	82.6	2.1
80°-90°	22.0	0.6
90°-100°	126.6	3.2
100°-110°	401.7	10.3
110°-120°	393.9	10.1
120°-130°	320.5	8.2
130°-140°	261.3	6.7
140°-150°	203.8	5.2
150°-160°	146.8	3.8
160°-170°	89.7	2.3
170°-180°	30.3	0.8
0°-30°	961.5	24.6
0°-40°	1367.1	35.0
0°-60°	1719.7	44.0
0°-90°	1936.9	49.5
90°-120°	922.2	23.6
90°-150°	1707.8	43.7
90°-180°	1975.0	50.5
0°-180°	3911.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1326	1326	1326	1326	1326	
5°	1314	1316	1309	1315	1314	125
15°	1268	1255	1258	1255	1268	357
25°	1165	954	1157	974	1165	537
35°	1025	425	1012	419	1025	640
45°	782	83	754	83	782	572
55°	234	150	222	136	234	225
65°	82	189	86	215	82	82
75°	44	119	45	123	44	45
85°	11	16	10	19	11	12
90°	0	3	0	3	0	1
95°	17	55	17	55	17	20
105°	70	723	70	723	70	74
115°	125	782	125	782	125	123
125°	173	614	173	614	173	154
135°	209	505	209	505	209	161
145°	244	421	244	421	244	153
155°	278	359	278	359	278	128
165°	303	330	303	330	303	85
175°	317	318	317	318	317	30
180°	318	318	318	318	318	



TEST NUMBER: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1326.0	1326.0	1326.0	1326.0	1326.0	1326.0	1326.0	1326.0	1326.0	1326.0	1326.0
2.5°	1318.8	1338.4	1321.2	1319.0	1326.0	1324.4	1322.0	1331.3	1315.6	1331.3	1318.8
5°	1314.0	1336.5	1311.0	1304.3	1316.0	1308.2	1315.0	1328.6	1309.0	1326.6	1307.0
7.5°	1305.8	1325.8	1295.2	1290.9	1302.4	1295.6	1298.4	1317.2	1300.8	1312.3	1294.6
10°	1297.0	1314.6	1284.0	1281.3	1292.0	1285.2	1288.0	1307.7	1292.0	1302.8	1285.0
12.5°	1287.4	1301.1	1270.4	1269.2	1278.4	1273.9	1275.2	1291.7	1279.2	1290.0	1273.0
15°	1268.0	1280.7	1250.0	1245.2	1255.0	1251.1	1253.0	1267.8	1258.0	1264.9	1250.0
17.5°	1244.0	1254.2	1223.6	1209.2	1209.6	1214.5	1223.6	1241.4	1232.6	1241.6	1220.6
20°	1224.0	1235.7	1202.0	1174.0	1172.0	1176.9	1202.0	1219.9	1215.0	1224.8	1195.0
22.5°	1200.8	1208.6	1178.0	1130.7	1124.0	1128.9	1174.8	1196.0	1194.2	1200.9	1163.8
25°	1165.0	1172.8	1117.0	1048.9	954.0	1043.0	1119.0	1157.0	1157.0	1162.9	1114.0
27.5°	1128.6	1128.8	1027.8	673.6	594.2	649.4	1026.4	1108.8	1118.2	1115.3	1019.2
30°	1103.0	1096.2	911.0	544.5	523.0	536.7	912.0	1075.4	1091.0	1080.3	888.0
32.5°	1073.4	1054.0	672.6	500.6	483.0	495.1	650.4	1035.6	1063.0	1039.7	698.4
35°	1025.0	974.2	513.0	442.6	425.0	440.6	509.0	957.3	1012.0	949.4	530.0
37.5°	972.8	774.3	451.6	352.5	314.6	344.9	449.4	766.0	951.6	748.2	451.2
40°	932.0	608.4	406.0	257.9	209.0	243.2	403.0	580.4	906.0	624.4	396.0
42.5°	877.6	534.4	326.0	163.8	128.2	149.9	312.6	522.1	850.0	541.0	315.2
45°	782.0	459.3	193.0	89.8	83.0	86.9	178.0	450.9	754.0	441.1	197.0
47.5°	619.4	350.3	124.0	76.4	83.8	76.4	120.2	339.2	585.0	338.6	123.8
50°	469.0	273.4	96.0	77.3	91.0	77.3	93.0	264.1	445.0	288.6	95.0
52.5°	347.4	228.5	78.4	84.8	109.4	86.3	76.2	222.4	329.8	232.8	74.2
55°	234.0	179.2	63.0	111.9	150.0	114.8	63.0	174.1	222.0	172.1	61.0
57.5°	148.4	133.3	63.8	143.8	171.2	146.6	64.8	128.5	142.4	129.1	56.0
60°	110.0	105.1	71.0	152.7	184.0	154.7	72.0	101.2	108.0	100.2	60.0
62.5°	90.8	82.8	85.4	165.4	191.2	161.1	87.2	79.0	94.4	75.6	66.4
65°	82.0	53.6	101.0	167.5	189.0	167.5	102.0	50.8	86.0	54.7	90.0
67.5°	74.0	39.8	97.6	166.3	190.2	166.7	95.2	38.0	71.0	37.0	92.0
70°	62.0	35.6	92.0	169.3	183.0	163.4	92.0	34.6	59.0	33.6	108.0
72.5°	51.6	33.8	85.6	156.3	162.2	150.5	86.4	33.6	51.8	30.3	101.6
75°	44.0	33.2	82.0	124.9	119.0	119.0	80.0	32.3	45.0	30.3	79.0
77.5°	33.0	29.5	68.0	81.5	77.0	77.0	66.8	28.5	31.4	26.7	64.2
80°	25.0	27.0	56.0	59.9	57.0	57.0	54.0	26.0	25.0	25.0	53.0
82.5°	19.4	22.9	43.2	44.0	41.8	41.0	42.0	22.7	19.4	21.0	41.0
85°	11.0	15.9	23.0	18.9	16.0	15.0	22.0	14.9	10.0	14.9	22.0
87.5°	4.0	7.3	3.8	3.8	3.8	3.8	3.8	7.3	4.0	6.5	4.6
90°	0.0	1.0	3.0	3.0	3.0	3.0	3.0	1.0	0.0	1.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6	23.6	71.0	22.2	5.6	22.2	71.0
95°	17.0	51.2	230.0	85.3	55.0	85.3	230.0	51.2	17.0	51.2	230.0
97.5°	31.6	66.4	389.6	243.4	149.4	243.4	389.6	66.4	31.6	66.4	389.6
100°	42.0	75.2	444.0	404.7	263.0	404.7	444.0	75.2	42.0	75.2	444.0
102.5°	53.2	84.9	434.4	594.4	455.0	594.4	434.4	84.9	53.2	84.9	434.4
105°	70.0	98.3	396.0	754.2	722.9	754.2	396.0	98.3	70.0	98.3	396.0
107.5°	86.8	113.0	359.4	770.9	813.1	770.9	359.4	113.0	86.8	113.0	359.4
110°	98.0	123.4	341.0	751.7	829.9	751.7	341.0	123.4	98.0	123.4	341.0



TEST NUMBER: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	109.2	133.0	330.6	718.6	817.9	718.6	330.6	133.0	109.2	133.0	330.6
115°	125.0	148.5	320.0	664.6	781.9	664.6	320.0	148.5	125.0	148.5	320.0
117.5°	140.4	162.7	315.8	612.6	730.9	612.6	315.8	162.7	140.4	162.7	315.8
120°	150.0	171.5	315.0	580.5	694.9	580.5	315.0	171.5	150.0	171.5	315.0
122.5°	159.6	180.3	315.0	554.8	661.3	554.8	315.0	180.3	159.6	180.3	315.0
125°	173.0	193.5	315.0	521.1	613.9	521.1	315.0	193.5	173.0	193.5	315.0
127.5°	184.8	204.5	315.0	495.0	574.1	495.0	315.0	204.5	184.8	204.5	315.0
130°	192.0	212.5	315.0	479.6	550.9	479.6	315.0	212.5	192.0	212.5	315.0
132.5°	199.2	219.7	314.2	467.4	531.8	467.4	314.2	219.7	199.2	219.7	314.2
135°	209.0	229.5	313.0	448.2	505.0	448.2	313.0	229.5	209.0	229.5	313.0
137.5°	218.6	240.1	312.8	429.9	480.6	429.9	312.8	240.1	218.6	240.1	312.8
140°	225.0	246.5	312.0	417.0	463.0	417.0	312.0	246.5	225.0	246.5	312.0
142.5°	233.0	253.7	312.8	404.1	447.0	404.1	312.8	253.7	233.0	253.7	312.8
145°	244.0	262.6	313.0	386.7	421.0	386.7	313.0	262.6	244.0	262.6	313.0
147.5°	255.0	270.8	313.2	371.4	399.4	371.4	313.2	270.8	255.0	270.8	313.2
150°	263.0	275.7	314.0	362.5	385.0	362.5	314.0	275.7	263.0	275.7	314.0
152.5°	269.4	280.5	314.0	355.2	373.8	355.2	314.0	280.5	269.4	280.5	314.0
155°	278.0	287.8	314.0	345.3	359.0	345.3	314.0	287.8	278.0	287.8	314.0
157.5°	287.2	293.8	315.0	339.2	348.6	339.2	315.0	293.8	287.2	293.8	315.0
160°	292.0	297.8	315.0	335.1	343.0	335.1	315.0	297.8	292.0	297.8	315.0
162.5°	296.8	301.1	315.0	331.9	337.4	331.9	315.0	301.1	296.8	301.1	315.0
165°	303.0	305.9	315.0	327.0	330.0	327.0	315.0	305.9	303.0	305.9	315.0
167.5°	308.8	309.6	316.0	323.6	326.2	323.6	316.0	309.6	308.8	309.6	316.0
170°	312.0	312.0	316.0	322.0	323.0	322.0	316.0	312.0	312.0	312.0	316.0
172.5°	313.6	314.4	316.0	320.4	320.6	320.4	316.0	314.4	313.6	314.4	316.0
175°	317.0	316.0	317.0	318.9	318.0	318.9	317.0	316.0	317.0	316.0	317.0
177.5°	318.0	317.2	317.2	318.7	317.2	318.7	317.2	317.2	318.0	317.2	317.2
180°	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0



TEST NUMBER: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1326.0	1326.0	1326.0	1326.0	1326.0	1326.0
2.5°	1315.7	1321.2	1321.2	1318.0	1333.7	1318.8
5°	1302.3	1315.0	1309.1	1309.0	1328.7	1314.0
7.5°	1292.9	1304.8	1299.3	1298.2	1317.5	1305.8
10°	1283.2	1292.0	1288.1	1291.0	1308.7	1297.0
12.5°	1269.6	1280.0	1276.1	1280.6	1296.8	1287.4
15°	1246.2	1255.0	1257.0	1259.0	1277.8	1268.0
17.5°	1207.5	1211.8	1221.6	1235.4	1255.0	1244.0
20°	1177.1	1183.0	1188.9	1213.0	1235.7	1224.0
22.5°	1142.6	1140.6	1154.3	1182.6	1211.0	1200.8
25°	1049.3	974.0	1057.1	1130.0	1167.9	1165.0
27.5°	730.6	634.0	719.5	1043.0	1122.7	1128.6
30°	575.0	530.0	574.0	931.0	1089.3	1103.0
32.5°	510.5	479.6	506.4	708.6	1047.2	1073.4
35°	440.5	419.0	440.5	530.0	964.4	1025.0
37.5°	352.6	308.6	351.8	458.0	779.6	972.8
40°	262.7	207.0	254.9	410.0	623.0	932.0
42.5°	175.1	133.4	165.7	322.8	538.9	877.6
45°	94.7	83.0	90.8	195.0	439.8	782.0
47.5°	74.3	78.6	74.3	123.0	336.4	619.4
50°	71.3	85.0	71.3	95.0	278.3	469.0
52.5°	77.7	92.2	76.9	75.0	227.1	347.4
55°	88.1	136.0	89.1	61.0	166.5	234.0
57.5°	125.4	153.0	126.8	57.8	128.3	148.4
60°	128.8	165.0	127.8	61.0	99.2	110.0
62.5°	152.4	204.2	152.2	69.8	73.8	90.8
65°	195.4	215.0	197.4	89.0	52.7	82.0
67.5°	185.5	199.4	183.6	95.4	36.3	74.0
70°	182.2	193.0	180.3	109.0	33.6	62.0
72.5°	170.0	171.4	166.5	101.0	30.3	51.6
75°	131.8	123.0	126.9	87.0	30.3	44.0
77.5°	81.9	78.4	79.0	66.4	26.7	33.0
80°	62.0	60.0	59.0	56.0	25.0	25.0
82.5°	46.0	44.0	43.0	43.2	21.0	19.4
85°	21.0	19.0	18.0	25.0	14.9	11.0
87.5°	4.6	4.6	3.8	4.6	5.8	4.0
90°	3.0	3.0	3.0	3.0	1.0	0.0
92.5°	23.6	16.6	23.6	71.0	22.2	5.6
95°	85.3	55.0	85.3	230.0	51.2	17.0
97.5°	243.4	149.4	243.4	389.6	66.4	31.6
100°	404.7	263.0	404.7	444.0	75.2	42.0
102.5°	594.4	455.0	594.4	434.4	84.9	53.2
105°	754.2	722.9	754.2	396.0	98.3	70.0
107.5°	770.9	813.1	770.9	359.4	113.0	86.8
110°	751.7	829.9	751.7	341.0	123.4	98.0





TEST NUMBER: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	718.6	817.9	718.6	330.6	133.0	109.2
115°	664.6	781.9	664.6	320.0	148.5	125.0
117.5°	612.6	730.9	612.6	315.8	162.7	140.4
120°	580.5	694.9	580.5	315.0	171.5	150.0
122.5°	554.8	661.3	554.8	315.0	180.3	159.6
125°	521.1	613.9	521.1	315.0	193.5	173.0
127.5°	495.0	574.1	495.0	315.0	204.5	184.8
130°	479.6	550.9	479.6	315.0	212.5	192.0
132.5°	467.4	531.8	467.4	314.2	219.7	199.2
135°	448.2	505.0	448.2	313.0	229.5	209.0
137.5°	429.9	480.6	429.9	312.8	240.1	218.6
140°	417.0	463.0	417.0	312.0	246.5	225.0
142.5°	404.1	447.0	404.1	312.8	253.7	233.0
145°	386.7	421.0	386.7	313.0	262.6	244.0
147.5°	371.4	399.4	371.4	313.2	270.8	255.0
150°	362.5	385.0	362.5	314.0	275.7	263.0
152.5°	355.2	373.8	355.2	314.0	280.5	269.4
155°	345.3	359.0	345.3	314.0	287.8	278.0
157.5°	339.2	348.6	339.2	315.0	293.8	287.2
160°	335.1	343.0	335.1	315.0	297.8	292.0
162.5°	331.9	337.4	331.9	315.0	301.1	296.8
165°	327.0	330.0	327.0	315.0	305.9	303.0
167.5°	323.6	326.2	323.6	316.0	309.6	308.8
170°	322.0	323.0	322.0	316.0	312.0	312.0
172.5°	320.4	320.6	320.4	316.0	314.4	313.6
175°	318.9	318.0	318.9	317.0	316.0	317.0
177.5°	318.7	317.2	318.7	317.2	317.2	318.0
180°	318.0	318.0	318.0	318.0	318.0	318.0



TEST NUMBER: P853753

CATALOG NUMBER: SQ2-FA-050U-050D-935-UNV-STD-W-4

**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	10.51	11.27	11.50	12.25	13.54	9.37	10.13	10.36	11.11	12.40
	3H	11.21	11.89	12.20	12.88	14.19	15.52	16.20	16.51	17.19	18.50
	4H	11.62	12.26	12.62	13.25	14.57	16.79	17.43	17.80	18.43	19.74
	6H	11.97	12.56	12.99	13.56	14.88	17.40	17.99	18.41	18.98	20.31
	8H	12.08	12.64	13.11	13.66	14.98	17.52	18.08	18.54	19.09	20.42
	12H	12.15	12.69	13.18	13.69	15.04	17.56	18.09	18.58	19.10	20.44
4H	2H	10.90	11.54	11.92	12.54	13.85	9.90	10.54	10.91	11.53	12.85
	3H	11.90	12.43	12.91	13.45	14.78	16.22	16.75	17.24	17.77	19.10
	4H	12.45	12.94	13.48	13.96	15.31	17.67	18.16	18.69	19.17	20.52
	6H	12.93	13.35	13.96	14.38	15.73	18.40	18.82	19.44	19.86	21.21
	8H	13.10	13.49	14.13	14.52	15.88	18.57	18.96	19.60	19.99	21.35
	12H	13.21	13.56	14.26	14.61	15.98	18.63	18.98	19.68	20.02	21.39
8H	4H	13.55	13.94	14.59	14.97	16.34	17.79	18.18	18.82	19.21	20.57
	6H	14.16	14.48	15.22	15.55	16.91	18.66	18.99	19.72	20.06	21.42
	8H	14.39	14.68	15.46	15.73	17.11	18.91	19.20	19.98	20.25	21.63
	12H	14.56	14.81	15.63	15.86	17.28	19.03	19.28	20.10	20.33	21.75
12H	4H	13.69	14.04	14.75	15.09	16.46	17.74	18.10	18.80	19.14	20.51
	6H	14.43	14.72	15.50	15.77	17.15	18.67	18.96	19.74	20.01	21.39
	8H	14.73	14.98	15.80	16.03	17.45	18.95	19.20	20.02	20.25	21.67