

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: P853789

Luminaire Tested: SQ2-FA-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853789
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-100U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

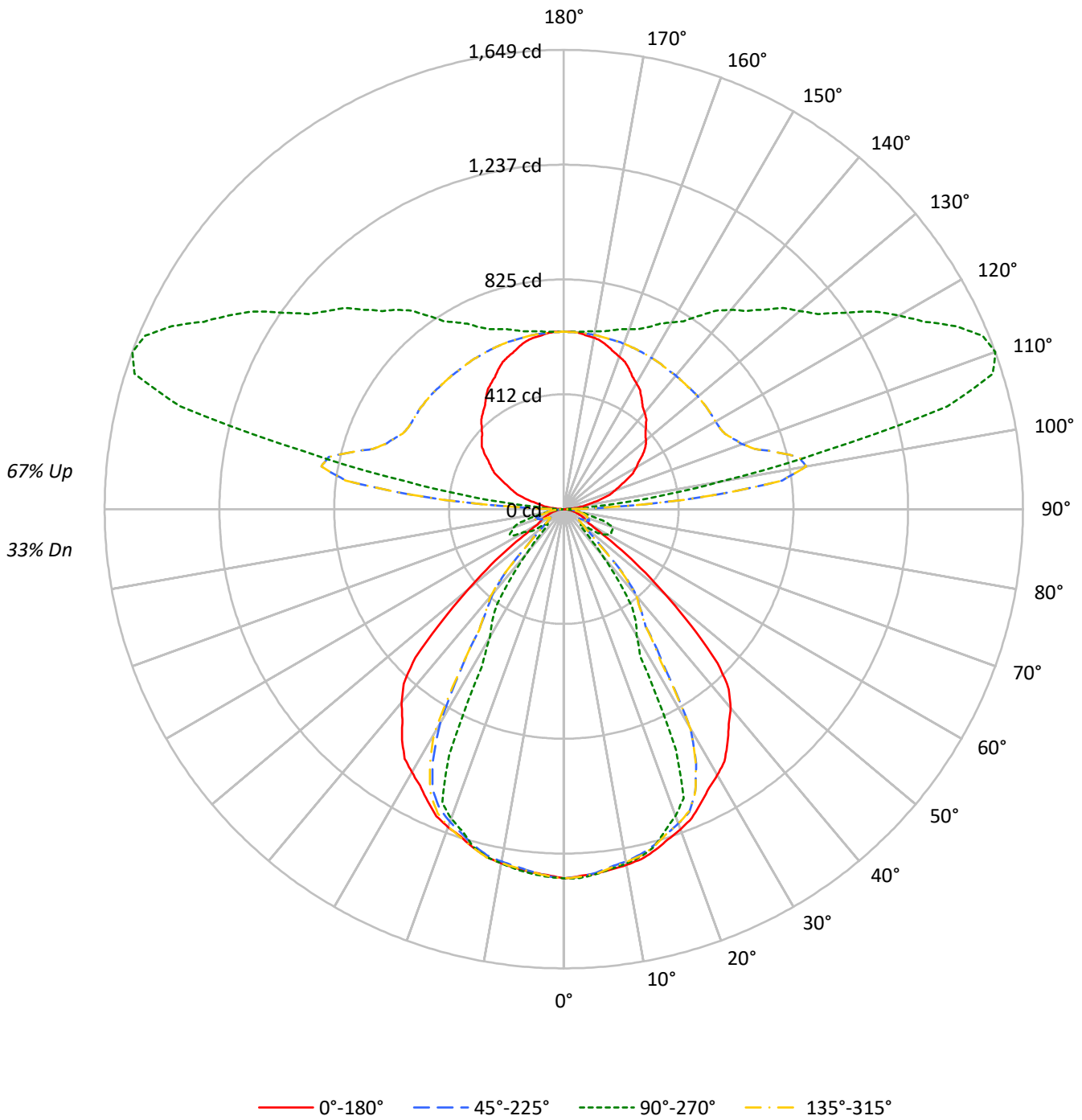
Lumens per Lamp: N/A
Luminaire Lumens: 5901.0 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.4
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	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	33
1	95	91	87	84	85	82	79	76	66	64	62	51	49	48	37	36	35	29
2	87	80	75	70	78	73	68	64	58	55	52	45	43	42	33	32	31	26
3	80	71	65	59	72	65	59	55	52	48	45	41	38	36	30	29	28	23
4	73	64	57	51	66	58	52	47	47	43	39	37	34	32	28	26	25	21
5	68	57	50	44	61	52	46	41	43	38	35	34	31	28	26	24	22	19
6	63	52	44	39	57	47	41	36	39	34	31	31	28	25	24	22	20	17
7	58	47	40	35	53	43	37	32	36	31	28	29	25	23	22	20	18	16
8	54	43	36	31	49	39	33	29	33	28	25	26	23	21	21	18	17	14
9	51	39	32	28	46	36	30	26	30	26	22	25	21	19	19	17	16	13
10	47	36	30	25	43	33	27	24	28	23	20	23	20	17	18	16	14	12

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.8	2.1
10°-20°	354.0	6.0
20°-30°	482.7	8.2
30°-40°	405.6	6.9
40°-50°	230.4	3.9
50°-60°	122.2	2.1
60°-70°	112.5	1.9
70°-80°	82.6	1.4
80°-90°	22.7	0.4
90°-100°	266.0	4.5
100°-110°	804.4	13.6
110°-120°	785.2	13.3
120°-130°	641.7	10.9
130°-140°	523.8	8.9
140°-150°	407.7	6.9
150°-160°	293.9	5.0
160°-170°	179.9	3.0
170°-180°	60.8	1.0
0°-30°	961.5	16.3
0°-40°	1367.1	23.2
0°-60°	1719.7	29.1
0°-90°	1937.6	32.8
90°-120°	1855.6	31.4
90°-150°	3428.7	58.1
90°-180°	3963.0	67.2
0°-180°	5901.0	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	6	0	6	0	2
95°	33	117	33	117	33	39
105°	140	1426	140	1426	140	147
115°	249	1553	249	1553	249	246
125°	348	1229	348	1229	348	309
135°	417	1013	417	1013	417	323
145°	487	847	487	847	487	305
155°	555	721	555	721	555	255
165°	607	665	607	665	607	171
175°	635	639	635	639	635	60
180°	637	637	637	637	637	



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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	7.5	5.6	4.6	4.4	4.6	5.6	7.5	4.0	6.7	6.4
90°	0.0	2.0	12.0	7.0	6.0	7.0	12.0	2.0	0.0	2.0	12.0
92.5°	11.2	45.2	162.4	53.8	38.8	53.8	162.4	45.2	11.2	45.2	162.4
95°	33.0	104.3	501.9	185.4	117.0	185.4	501.9	104.3	33.0	104.3	501.9
97.5°	63.8	132.8	791.0	523.4	318.7	523.4	791.0	132.8	63.8	132.8	791.0
100°	83.0	150.4	883.8	854.4	573.8	854.4	883.8	150.4	83.0	150.4	883.8
102.5°	104.6	169.7	864.6	1198.4	955.3	1198.4	864.6	169.7	104.6	169.7	864.6
105°	140.0	196.7	789.8	1499.9	1425.6	1499.9	789.8	196.7	140.0	196.7	789.8
107.5°	173.6	227.7	717.8	1529.7	1615.8	1529.7	717.8	227.7	173.6	227.7	717.8
110°	195.9	247.8	681.8	1492.2	1648.6	1492.2	681.8	247.8	195.9	247.8	681.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	217.5	267.8	660.2	1429.1	1627.0	1429.1	660.2	267.8	217.5	267.8	660.2
115°	248.9	296.8	638.8	1321.9	1552.6	1321.9	638.8	296.8	248.9	296.8	638.8
117.5°	280.1	325.5	631.2	1221.4	1457.6	1221.4	631.2	325.5	280.1	325.5	631.2
120°	300.9	343.9	628.8	1162.8	1389.6	1162.8	628.8	343.9	300.9	343.9	628.8
122.5°	320.1	360.8	628.8	1111.3	1320.8	1111.3	628.8	360.8	320.1	360.8	628.8
125°	347.9	386.0	629.8	1043.9	1228.7	1043.9	629.8	386.0	347.9	386.0	629.8
127.5°	370.5	410.0	628.8	993.1	1150.7	993.1	628.8	410.0	370.5	410.0	628.8
130°	384.9	426.0	628.8	964.0	1106.7	964.0	628.8	426.0	384.9	426.0	628.8
132.5°	397.7	439.5	628.0	937.3	1069.1	937.3	628.0	439.5	397.7	439.5	628.0
135°	416.9	460.9	625.8	900.3	1012.7	900.3	625.8	460.9	416.9	460.9	625.8
137.5°	438.3	480.1	625.8	860.7	964.9	860.7	625.8	480.1	438.3	480.1	625.8
140°	451.9	492.9	625.8	835.0	933.8	835.0	625.8	492.9	451.9	492.9	625.8
142.5°	465.5	505.0	625.0	811.5	897.8	811.5	625.0	505.0	465.5	505.0	625.0
145°	486.9	523.0	625.8	774.4	846.8	774.4	625.8	523.0	486.9	523.0	625.8
147.5°	508.3	539.0	627.0	743.9	799.4	743.9	627.0	539.0	508.3	539.0	627.0
150°	521.9	550.2	627.8	726.9	773.8	726.9	627.8	550.2	521.9	550.2	627.8
152.5°	534.7	559.9	628.6	712.3	750.6	712.3	628.6	559.9	534.7	559.9	628.6
155°	554.9	573.4	629.8	694.4	720.8	694.4	629.8	573.4	554.9	573.4	629.8
157.5°	572.4	587.5	631.0	681.2	699.6	681.2	631.0	587.5	572.4	587.5	631.0
160°	582.8	595.6	631.8	673.1	686.8	673.1	631.8	595.6	582.8	595.6	631.8
162.5°	593.2	602.8	632.6	665.9	677.2	665.9	632.6	602.8	593.2	602.8	632.6
165°	606.8	613.7	632.8	657.0	664.8	657.0	632.8	613.7	606.8	613.7	632.8
167.5°	618.4	622.0	634.0	650.1	653.4	650.1	634.0	622.0	618.4	622.0	634.0
170°	624.8	626.8	634.8	646.8	647.8	646.8	634.8	626.8	624.8	626.8	634.8
172.5°	628.8	630.0	634.8	643.6	643.8	643.6	634.8	630.0	628.8	630.0	634.8
175°	634.8	634.8	635.8	640.8	638.8	640.8	635.8	634.8	634.8	634.8	635.8
177.5°	637.6	636.8	636.0	638.4	636.8	638.4	636.0	636.8	637.6	636.8	636.0
180°	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8



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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°	5.4	5.2	4.6	6.4	6.0	4.0
90°	7.0	6.0	7.0	12.0	2.0	0.0
92.5°	53.8	38.8	53.8	162.4	45.2	11.2
95°	185.4	117.0	185.4	501.9	104.3	33.0
97.5°	523.4	318.7	523.4	791.0	132.8	63.8
100°	854.4	573.8	854.4	883.8	150.4	83.0
102.5°	1198.4	955.3	1198.4	864.6	169.7	104.6
105°	1499.9	1425.6	1499.9	789.8	196.7	140.0
107.5°	1529.7	1615.8	1529.7	717.8	227.7	173.6
110°	1492.2	1648.6	1492.2	681.8	247.8	195.9



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1429.1	1627.0	1429.1	660.2	267.8	217.5
115°	1321.9	1552.6	1321.9	638.8	296.8	248.9
117.5°	1221.4	1457.6	1221.4	631.2	325.5	280.1
120°	1162.8	1389.6	1162.8	628.8	343.9	300.9
122.5°	1111.3	1320.8	1111.3	628.8	360.8	320.1
125°	1043.9	1228.7	1043.9	629.8	386.0	347.9
127.5°	993.1	1150.7	993.1	628.8	410.0	370.5
130°	964.0	1106.7	964.0	628.8	426.0	384.9
132.5°	937.3	1069.1	937.3	628.0	439.5	397.7
135°	900.3	1012.7	900.3	625.8	460.9	416.9
137.5°	860.7	964.9	860.7	625.8	480.1	438.3
140°	835.0	933.8	835.0	625.8	492.9	451.9
142.5°	811.5	897.8	811.5	625.0	505.0	465.5
145°	774.4	846.8	774.4	625.8	523.0	486.9
147.5°	743.9	799.4	743.9	627.0	539.0	508.3
150°	726.9	773.8	726.9	627.8	550.2	521.9
152.5°	712.3	750.6	712.3	628.6	559.9	534.7
155°	694.4	720.8	694.4	629.8	573.4	554.9
157.5°	681.2	699.6	681.2	631.0	587.5	572.4
160°	673.1	686.8	673.1	631.8	595.6	582.8
162.5°	665.9	677.2	665.9	632.6	602.8	593.2
165°	657.0	664.8	657.0	632.8	613.7	606.8
167.5°	650.1	653.4	650.1	634.0	622.0	618.4
170°	646.8	647.8	646.8	634.8	626.8	624.8
172.5°	643.6	643.8	643.6	634.8	630.0	628.8
175°	640.8	638.8	640.8	635.8	634.8	634.8
177.5°	638.4	636.8	638.4	636.0	636.8	637.6
180°	636.8	636.8	636.8	636.8	636.8	636.8



TEST NUMBER: P853789

CATALOG NUMBER: SQ2-FA-100U-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	8.67	9.34	9.78	10.43	11.93	7.53	8.19	8.64	9.29	10.79
	3H	9.36	9.96	10.48	11.06	12.58	13.67	14.27	14.79	15.37	16.89
	4H	9.76	10.33	10.89	11.43	12.96	14.94	15.50	16.07	16.61	18.13
	6H	10.11	10.63	11.25	11.74	13.27	15.54	16.06	16.67	17.16	18.70
	8H	10.23	10.72	11.36	11.84	13.37	15.66	16.15	16.80	17.27	18.80
	12H	10.29	10.76	11.43	11.88	13.43	15.70	16.16	16.83	17.28	18.83
4H	2H	9.05	9.61	10.18	10.72	12.24	8.04	8.61	9.18	9.71	11.24
	3H	10.04	10.51	11.17	11.64	13.17	14.36	14.83	15.50	15.96	17.50
	4H	10.59	11.03	11.73	12.15	13.70	15.81	16.24	16.94	17.36	18.91
	6H	11.06	11.43	12.21	12.57	14.12	16.54	16.91	17.68	18.05	19.60
	8H	11.23	11.58	12.38	12.71	14.27	16.70	17.05	17.85	18.18	19.74
	12H	11.34	11.65	12.50	12.80	14.37	16.76	17.07	17.92	18.21	19.78
8H	4H	11.69	12.03	12.83	13.16	14.73	15.92	16.27	17.06	17.40	18.96
	6H	12.29	12.57	13.45	13.75	15.31	16.80	17.08	17.96	18.25	19.82
	8H	12.53	12.77	13.70	13.93	15.51	17.05	17.29	18.22	18.45	20.03
	12H	12.69	12.91	13.86	14.06	15.68	17.16	17.38	18.33	18.53	20.15
12H	4H	11.82	12.14	12.98	13.28	14.85	15.87	16.19	17.03	17.33	18.90
	6H	12.57	12.81	13.74	13.97	15.55	16.81	17.05	17.98	18.21	19.79
	8H	12.86	13.07	14.03	14.23	15.84	17.08	17.30	18.25	18.45	20.06