

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: P853742

Luminaire Tested: SQ2-FA-025U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853742
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-025U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

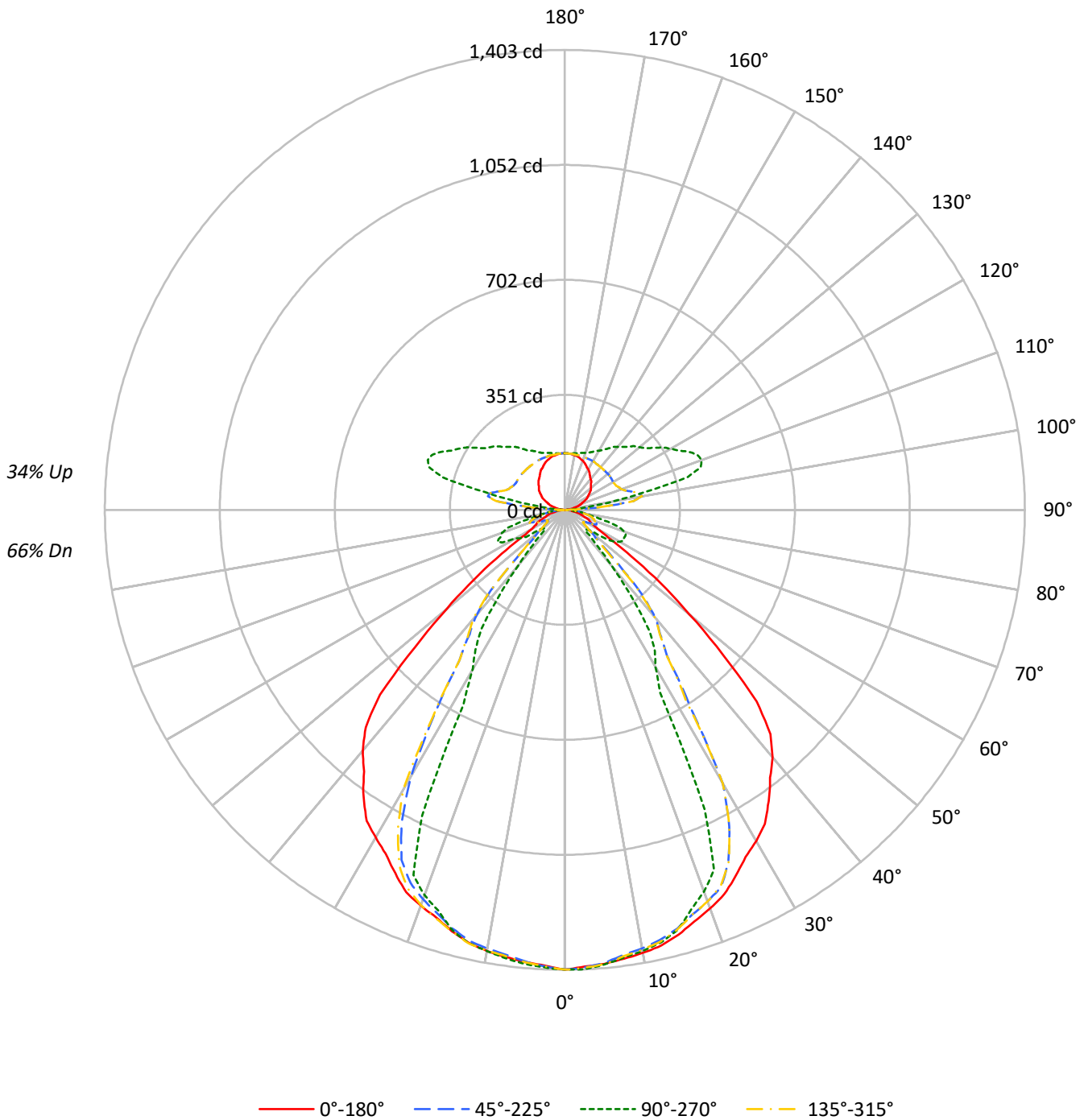
Lumens per Lamp: N/A
Luminaire Lumens: 3117.6 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.2
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
RCR																				
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66		
1	103	99	95	92	97	93	90	87	83	81	79	73	72	70	64	63	62	58		
2	95	88	83	78	89	84	79	75	75	71	68	66	64	61	59	57	55	51		
3	88	79	73	67	83	75	69	65	68	63	59	61	57	54	54	51	49	46		
4	82	72	65	59	77	68	62	57	62	57	53	55	52	48	50	47	44	41		
5	76	65	58	52	72	62	56	51	56	51	47	51	47	44	46	43	40	37		
6	71	60	52	47	67	57	50	45	52	46	42	47	43	39	43	39	37	34		
7	66	55	47	42	63	52	46	41	48	42	38	44	39	36	40	36	34	31		
8	62	51	43	38	59	48	42	37	44	39	35	41	36	33	37	34	31	29		
9	58	47	40	35	55	45	39	34	41	36	32	38	34	30	35	31	29	27		
10	55	44	37	32	52	42	36	31	39	33	30	36	31	28	33	29	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	22646	22646	22646	22646
5°	22527	22561	22441	22545
10°	22492	22405	22405	22405
15°	22420	22190	22243	22190
20°	22246	21301	22082	21500
25°	21953	17977	21802	18355
30°	21752	10314	21515	10452
35°	21370	8862	21100	8736
40°	20778	4660	20198	4616
45°	18888	2005	18212	2005
50°	12461	2419	11823	2258
55°	6967	4467	6609	4051
60°	3759	6284	3688	5635
65°	3312	7637	3477	8688
70°	3097	9139	2946	9640
75°	2901	7854	2969	8116
80°	2455	5607	2455	5904
85°	2149	3131	1964	3724

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18888 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	4.2
10°-20°	374.5	12.0
20°-30°	510.6	16.4
30°-40°	429.1	13.8
40°-50°	243.7	7.8
50°-60°	129.3	4.1
60°-70°	119.0	3.8
70°-80°	87.4	2.8
80°-90°	23.2	0.7
90°-100°	69.7	2.2
100°-110°	216.8	7.0
110°-120°	212.1	6.8
120°-130°	173.1	5.6
130°-140°	141.6	4.5
140°-150°	110.5	3.5
150°-160°	79.8	2.6
160°-170°	48.8	1.6
170°-180°	16.4	0.5
0°-30°	1017.0	32.6
0°-40°	1446.1	46.4
0°-60°	1819.1	58.3
0°-90°	2048.8	65.7
90°-120°	498.5	16.0
90°-150°	923.8	29.6
90°-180°	1069.0	34.3
0°-180°	3117.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1403	1403	1403	1403	1403	
5°	1390	1392	1385	1391	1390	132
15°	1341	1328	1331	1328	1341	378
25°	1232	1009	1224	1030	1232	568
35°	1084	450	1070	443	1084	677
45°	827	88	798	88	827	605
55°	248	159	235	144	248	238
65°	87	200	91	227	87	87
75°	46	126	48	130	46	48
85°	12	17	11	20	12	13
90°	0	3	0	3	0	1
95°	10	31	10	31	10	11
105°	38	389	38	389	38	40
115°	68	418	68	418	68	67
125°	94	330	94	330	94	83
135°	113	273	113	273	113	87
145°	132	228	132	228	132	83
155°	151	194	151	194	151	70
165°	166	180	166	180	166	47
175°	172	172	172	172	172	16
180°	172	172	172	172	172	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1402.6	1402.6	1402.6	1402.6	1402.6	1402.6	1402.6	1402.6	1402.6	1402.6	1402.6
2.5°	1395.0	1415.7	1397.5	1395.2	1402.6	1401.0	1398.4	1408.2	1391.6	1408.2	1395.0
5°	1389.9	1413.7	1386.7	1379.6	1392.0	1383.8	1391.0	1405.3	1384.6	1403.2	1382.5
7.5°	1381.2	1402.3	1370.0	1365.4	1377.6	1370.4	1373.4	1393.3	1376.0	1388.2	1369.4
10°	1371.9	1390.6	1358.2	1355.3	1366.6	1359.4	1362.4	1383.2	1366.6	1378.0	1359.2
12.5°	1361.8	1376.3	1343.8	1342.5	1352.3	1347.5	1348.9	1366.3	1353.1	1364.5	1346.5
15°	1341.3	1354.7	1322.2	1317.2	1327.5	1323.4	1325.4	1341.0	1330.7	1337.9	1322.2
17.5°	1315.9	1326.6	1294.3	1279.1	1279.5	1284.7	1294.3	1313.1	1303.8	1313.3	1291.1
20°	1294.7	1307.1	1271.4	1241.8	1239.7	1244.9	1271.4	1290.4	1285.2	1295.5	1264.0
22.5°	1270.2	1278.4	1246.1	1196.0	1188.9	1194.1	1242.7	1265.1	1263.2	1270.2	1231.0
25°	1232.3	1240.6	1181.5	1109.4	1009.1	1103.2	1183.6	1223.8	1223.8	1230.1	1178.4
27.5°	1193.8	1194.0	1087.2	712.5	628.5	686.9	1085.7	1172.9	1182.8	1179.7	1078.1
30°	1166.7	1159.5	963.6	576.0	553.2	567.7	964.7	1137.5	1154.0	1142.7	939.3
32.5°	1135.4	1114.9	711.5	529.5	510.9	523.7	688.0	1095.5	1124.4	1099.8	738.7
35°	1084.2	1030.4	542.6	468.2	449.6	466.1	538.4	1012.5	1070.5	1004.3	560.6
37.5°	1029.0	819.0	477.7	372.9	332.8	364.8	475.4	810.3	1006.6	791.5	477.3
40°	985.8	643.5	429.5	272.8	221.1	257.3	426.3	613.9	958.3	660.5	418.9
42.5°	928.3	565.3	344.8	173.3	135.6	158.6	330.7	552.2	899.1	572.3	333.4
45°	827.2	485.9	204.2	95.0	87.8	91.9	188.3	476.9	797.6	466.6	208.4
47.5°	655.2	370.6	131.2	80.8	88.6	80.8	127.1	358.8	618.8	358.2	131.0
50°	496.1	289.2	101.5	81.8	96.3	81.8	98.4	279.4	470.7	305.2	100.5
52.5°	367.5	241.7	82.9	89.7	115.7	91.3	80.6	235.3	348.9	246.3	78.5
55°	247.5	189.6	66.6	118.3	158.7	121.4	66.6	184.1	234.8	182.1	64.5
57.5°	157.0	141.0	67.5	152.1	181.1	155.0	68.5	135.9	150.6	136.6	59.2
60°	116.4	111.2	75.1	161.5	194.6	163.6	76.2	107.0	114.2	106.0	63.5
62.5°	96.0	87.6	90.3	174.9	202.2	170.4	92.2	83.5	99.9	80.0	70.2
65°	86.7	56.7	106.8	177.2	199.9	177.2	107.9	53.7	91.0	57.9	95.2
67.5°	78.3	42.1	103.2	176.0	201.2	176.4	100.7	40.1	75.1	39.1	97.3
70°	65.6	37.7	97.3	179.1	193.6	172.9	97.3	36.6	62.4	35.5	114.2
72.5°	54.6	35.8	90.5	165.4	171.6	159.2	91.4	35.6	54.8	32.0	107.5
75°	46.5	35.2	86.7	132.1	125.9	125.9	84.6	34.2	47.6	32.1	83.6
77.5°	34.9	31.2	71.9	86.2	81.4	81.4	70.7	30.1	33.2	28.2	67.9
80°	26.4	28.5	59.2	63.4	60.3	60.3	57.1	27.5	26.4	26.4	56.1
82.5°	20.5	24.2	45.7	46.5	44.2	43.4	44.4	24.0	20.5	22.2	43.4
85°	11.6	16.8	24.3	20.0	16.9	15.9	23.3	15.7	10.6	15.7	23.3
87.5°	4.2	7.7	4.0	4.0	4.0	4.0	4.0	7.7	4.2	6.9	4.9
90°	0.0	1.0	3.2	3.2	3.2	3.2	3.2	1.0	0.0	1.0	3.2
92.5°	3.4	11.9	40.4	13.3	10.8	13.3	40.4	11.9	3.4	11.9	40.4
95°	9.5	28.1	127.8	47.2	30.6	47.2	127.8	28.1	9.5	28.1	127.8
97.5°	17.3	36.5	211.7	131.8	83.0	131.8	211.7	36.5	17.3	36.5	211.7
100°	23.2	40.8	238.8	223.3	149.0	223.3	238.8	40.8	23.2	40.8	238.8
102.5°	29.2	45.9	233.7	319.0	250.4	319.0	233.7	45.9	29.2	45.9	233.7
105°	38.0	53.5	213.4	407.4	388.8	407.4	213.4	53.5	38.0	53.5	213.4
107.5°	46.9	61.4	194.0	414.2	434.6	414.2	194.0	61.4	46.9	61.4	194.0
110°	52.8	67.3	183.8	404.5	444.8	404.5	183.8	67.3	52.8	67.3	183.8



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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°	58.7	72.4	178.8	387.0	438.0	387.0	178.8	72.4	58.7	72.4	178.8
115°	67.6	80.0	173.3	357.4	418.4	357.4	173.3	80.0	67.6	80.0	173.3
117.5°	76.3	87.6	170.9	329.1	391.5	329.1	170.9	87.6	76.3	87.6	170.9
120°	81.3	92.7	170.1	313.0	372.9	313.0	170.1	92.7	81.3	92.7	170.1
122.5°	86.4	97.8	170.9	299.4	354.3	299.4	170.9	97.8	86.4	97.8	170.9
125°	94.0	104.4	171.1	281.1	329.6	281.1	171.1	104.4	94.0	104.4	171.1
127.5°	100.2	110.7	171.1	267.4	308.7	267.4	171.1	110.7	100.2	110.7	171.1
130°	103.5	114.9	171.1	259.7	296.9	259.7	171.1	114.9	103.5	114.9	171.1
132.5°	107.8	119.1	170.3	252.9	287.6	252.9	170.3	119.1	107.8	119.1	170.3
135°	113.0	125.4	170.1	242.6	272.6	242.6	170.1	125.4	113.0	125.4	170.1
137.5°	119.2	130.5	170.1	232.4	259.7	232.4	170.1	130.5	119.2	130.5	170.1
140°	122.6	133.9	170.1	225.6	250.4	225.6	170.1	133.9	122.6	133.9	170.1
142.5°	126.8	137.3	170.1	218.8	241.1	218.8	170.1	137.3	126.8	137.3	170.1
145°	132.1	142.4	170.1	209.6	228.2	209.6	170.1	142.4	132.1	142.4	170.1
147.5°	138.4	147.3	171.1	201.1	215.7	201.1	171.1	147.3	138.4	147.3	171.1
150°	142.6	149.9	171.1	196.8	208.1	196.8	171.1	149.9	142.6	149.9	171.1
152.5°	146.0	152.4	171.1	192.5	202.2	192.5	171.1	152.4	146.0	152.4	171.1
155°	151.1	156.2	171.1	188.2	194.4	188.2	171.1	156.2	151.1	156.2	171.1
157.5°	156.1	160.1	171.1	184.3	188.3	184.3	171.1	160.1	156.1	160.1	171.1
160°	159.5	162.6	171.1	181.8	184.9	181.8	171.1	162.6	159.5	162.6	171.1
162.5°	162.1	164.3	171.1	180.1	182.3	180.1	171.1	164.3	162.1	164.3	171.1
165°	165.9	166.9	172.2	177.5	179.6	177.5	172.2	166.9	165.9	166.9	172.2
167.5°	168.2	168.4	171.1	176.0	177.1	176.0	171.1	168.4	168.2	168.4	171.1
170°	169.0	170.1	171.1	174.3	175.4	174.3	171.1	170.1	169.0	170.1	171.1
172.5°	170.7	170.9	172.0	173.5	173.7	173.5	172.0	170.9	170.7	170.9	172.0
175°	172.2	172.2	172.2	173.2	172.2	173.2	172.2	172.2	172.2	172.2	172.2
177.5°	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2
180°	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2	172.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1402.6	1402.6	1402.6	1402.6	1402.6	1402.6
2.5°	1391.7	1397.5	1397.5	1394.1	1410.7	1395.0
5°	1377.5	1391.0	1384.8	1384.6	1405.4	1389.9
7.5°	1367.6	1380.2	1374.4	1373.2	1393.7	1381.2
10°	1357.3	1366.6	1362.5	1365.6	1384.3	1371.9
12.5°	1343.0	1354.0	1349.8	1354.6	1371.7	1361.8
15°	1318.2	1327.5	1329.6	1331.7	1351.6	1341.3
17.5°	1277.3	1281.8	1292.2	1306.8	1327.5	1315.9
20°	1245.1	1251.3	1257.6	1283.1	1307.1	1294.7
22.5°	1208.6	1206.5	1221.0	1250.9	1280.9	1270.2
25°	1109.9	1030.3	1118.2	1195.3	1235.4	1232.3
27.5°	772.8	670.6	761.0	1103.3	1187.6	1193.8
30°	608.2	560.6	607.2	984.8	1152.2	1166.7
32.5°	540.0	507.3	535.6	749.5	1107.7	1135.4
35°	466.0	443.2	466.0	560.6	1020.1	1084.2
37.5°	373.0	326.4	372.1	484.5	824.6	1029.0
40°	277.9	219.0	269.6	433.7	659.0	985.8
42.5°	185.2	141.1	175.2	341.4	570.0	928.3
45°	100.2	87.8	96.1	206.3	465.2	827.2
47.5°	78.6	83.1	78.6	130.1	355.9	655.2
50°	75.4	89.9	75.4	100.5	294.4	496.1
52.5°	82.2	97.5	81.4	79.3	240.3	367.5
55°	93.2	143.9	94.2	64.5	176.2	247.5
57.5°	132.7	161.8	134.1	61.1	135.7	157.0
60°	136.3	174.5	135.2	64.5	105.0	116.4
62.5°	161.2	216.0	161.0	73.8	78.0	96.0
65°	206.7	227.4	208.8	94.1	55.7	86.7
67.5°	196.2	210.9	194.2	100.9	38.4	78.3
70°	192.8	204.2	190.7	115.3	35.6	65.6
72.5°	179.9	181.3	176.1	106.8	32.0	54.6
75°	139.4	130.1	134.2	92.0	32.1	46.5
77.5°	86.7	82.9	83.6	70.2	28.3	34.9
80°	65.5	63.5	62.4	59.2	26.4	26.4
82.5°	48.6	46.5	45.5	45.7	22.2	20.5
85°	22.2	20.1	19.1	26.4	15.8	11.6
87.5°	4.9	4.9	4.0	4.9	6.1	4.2
90°	3.2	3.2	3.2	3.2	1.0	0.0
92.5°	13.3	10.8	13.3	40.4	11.9	3.4
95°	47.2	30.6	47.2	127.8	28.1	9.5
97.5°	131.8	83.0	131.8	211.7	36.5	17.3
100°	223.3	149.0	223.3	238.8	40.8	23.2
102.5°	319.0	250.4	319.0	233.7	45.9	29.2
105°	407.4	388.8	407.4	213.4	53.5	38.0
107.5°	414.2	434.6	414.2	194.0	61.4	46.9
110°	404.5	444.8	404.5	183.8	67.3	52.8



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	387.0	438.0	387.0	178.8	72.4	58.7
115°	357.4	418.4	357.4	173.3	80.0	67.6
117.5°	329.1	391.5	329.1	170.9	87.6	76.3
120°	313.0	372.9	313.0	170.1	92.7	81.3
122.5°	299.4	354.3	299.4	170.9	97.8	86.4
125°	281.1	329.6	281.1	171.1	104.4	94.0
127.5°	267.4	308.7	267.4	171.1	110.7	100.2
130°	259.7	296.9	259.7	171.1	114.9	103.5
132.5°	252.9	287.6	252.9	170.3	119.1	107.8
135°	242.6	272.6	242.6	170.1	125.4	113.0
137.5°	232.4	259.7	232.4	170.1	130.5	119.2
140°	225.6	250.4	225.6	170.1	133.9	122.6
142.5°	218.8	241.1	218.8	170.1	137.3	126.8
145°	209.6	228.2	209.6	170.1	142.4	132.1
147.5°	201.1	215.7	201.1	171.1	147.3	138.4
150°	196.8	208.1	196.8	171.1	149.9	142.6
152.5°	192.5	202.2	192.5	171.1	152.4	146.0
155°	188.2	194.4	188.2	171.1	156.2	151.1
157.5°	184.3	188.3	184.3	171.1	160.1	156.1
160°	181.8	184.9	181.8	171.1	162.6	159.5
162.5°	180.1	182.3	180.1	171.1	164.3	162.1
165°	177.5	179.6	177.5	172.2	166.9	165.9
167.5°	176.0	177.1	176.0	171.1	168.4	168.2
170°	174.3	175.4	174.3	171.1	170.1	169.0
172.5°	173.5	173.7	173.5	172.0	170.9	170.7
175°	173.2	172.2	173.2	172.2	172.2	172.2
177.5°	172.2	172.2	172.2	172.2	172.2	172.2
180°	172.2	172.2	172.2	172.2	172.2	172.2



TEST NUMBER: P853742

CATALOG NUMBER: SQ2-FA-025U-050D-940-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	12.15	13.03	12.99	13.86	14.90	11.01	11.88	11.84	12.72	13.76
	3H	12.86	13.64	13.70	14.48	15.55	17.16	17.94	18.01	18.79	19.86
	4H	13.27	14.00	14.13	14.86	15.93	18.44	19.18	19.30	20.03	21.11
	6H	13.62	14.30	14.49	15.16	16.25	19.05	19.73	19.92	20.59	21.68
	8H	13.74	14.38	14.62	15.26	16.35	19.17	19.82	20.06	20.70	21.78
	12H	13.81	14.43	14.70	15.30	16.41	19.22	19.83	20.10	20.70	21.81
4H	2H	12.55	13.29	13.42	14.14	15.22	11.54	12.28	12.41	13.14	14.21
	3H	13.55	14.16	14.43	15.05	16.14	17.87	18.49	18.75	19.37	20.46
	4H	14.11	14.67	15.00	15.56	16.67	19.32	19.88	20.21	20.77	21.88
	6H	14.59	15.07	15.49	15.98	17.10	20.06	20.54	20.96	21.45	22.57
	8H	14.76	15.21	15.66	16.11	17.24	20.23	20.68	21.13	21.58	22.71
	12H	14.88	15.28	15.80	16.20	17.34	20.29	20.70	21.21	21.62	22.75
8H	4H	15.21	15.66	16.12	16.57	17.70	19.45	19.90	20.35	20.80	21.93
	6H	15.82	16.19	16.75	17.14	18.27	20.33	20.70	21.26	21.64	22.77
	8H	16.06	16.38	17.00	17.32	18.47	20.58	20.91	21.52	21.84	22.99
	12H	16.23	16.52	17.17	17.44	18.65	20.70	20.99	21.64	21.92	23.12
12H	4H	15.36	15.76	16.28	16.69	17.82	19.41	19.81	20.33	20.74	21.87
	6H	16.10	16.42	17.04	17.36	18.51	20.34	20.66	21.28	21.60	22.75
	8H	16.40	16.68	17.34	17.61	18.81	20.62	20.91	21.56	21.83	23.04