

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1191265

Luminaire Tested: SQ2-FA-050U-100D-L840-UNV-STD-W-4

Issue Date: 9/23/2025

Test Information

Test Method: LM-79-2019
Report Number: P1191265
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2502-345-2)
Test Lab: INNOVATION CENTER
Issue Date: 9/23/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-050U-100D-L840-UNV-STD-W-4
Description: CORELITE SQ2 LED LUMINAIRE
FROSTED CONTINUOUS ASYMMETRIC ROLL LENS
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

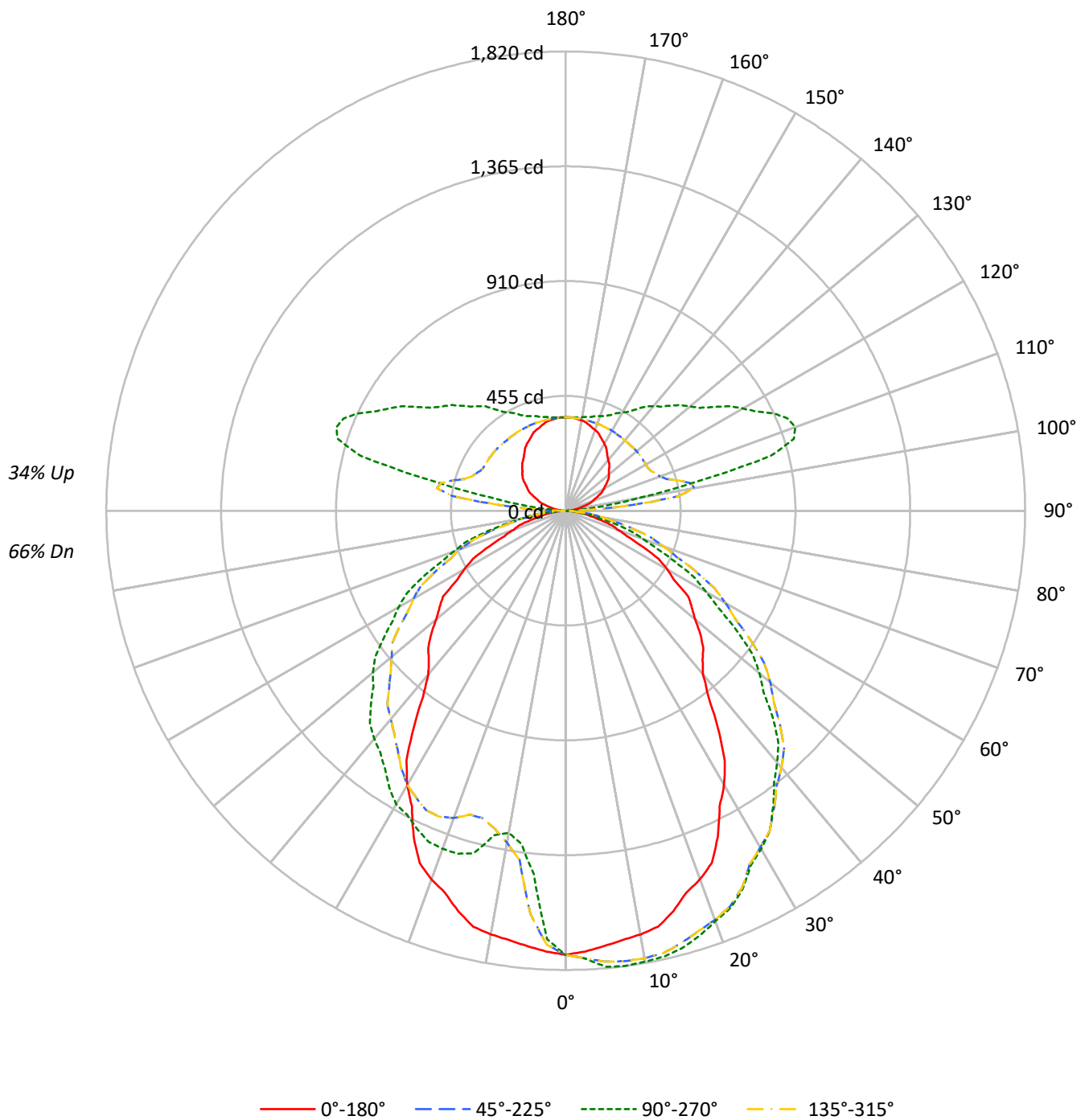
Lumens per Lamp: N/A
Luminaire Lumens: 6671.4 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.4
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
RW	70	50	30	10	70	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	70	70	70
1	101	97	93	90	95	91	88	85	81	78	76	71	69	68	63	61	60
2	92	85	79	73	87	80	75	70	71	67	63	63	60	57	55	53	50
3	84	75	67	61	79	71	64	58	63	57	53	56	51	48	49	46	43
4	77	66	58	52	72	63	55	50	56	50	45	49	45	41	44	40	37
5	71	59	51	45	66	56	48	43	50	44	39	44	40	36	39	35	32
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	36	32	28
7	61	48	40	34	57	46	38	33	41	35	30	37	32	28	33	28	25
8	56	44	36	30	53	41	34	29	37	31	27	34	28	25	30	26	23
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	28	23	20
10	49	37	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	28409	28409	28409	28409
5°	28075	29402	28075	23433
10°	27952	29742	27952	21245
15°	27473	29981	27473	23483
20°	26716	29763	26716	24490
25°	25392	29523	25392	24784
30°	23394	28862	23394	25048
35°	20700	28229	20700	24599
40°	17825	27455	17825	24867
45°	17596	26473	17596	24916
50°	16787	25181	16787	25010
55°	16701	23229	16701	24763
60°	14974	20702	14974	24664
65°	12768	18239	12768	23969
70°	10301	15451	10301	22216
75°	8933	12764	8933	20418
80°	7606	9512	7606	16485
85°	5057	5057	5057	10115

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 27407 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.3	2.4
10°-20°	442.4	6.6
20°-30°	671.8	10.1
30°-40°	788.7	11.8
40°-50°	800.3	12.0
50°-60°	701.1	10.5
60°-70°	497.4	7.5
70°-80°	256.1	3.8
80°-90°	54.2	0.8
90°-100°	147.6	2.2
100°-110°	468.1	7.0
110°-120°	459.0	6.9
120°-130°	373.5	5.6
130°-140°	304.6	4.6
140°-150°	237.4	3.6
150°-160°	171.1	2.6
160°-170°	104.5	1.6
170°-180°	35.3	0.5
0°-30°	1272.5	19.1
0°-40°	2061.2	30.9
0°-60°	3562.6	53.4
0°-90°	4370.3	65.5
90°-120°	1074.8	16.1
90°-150°	1990.3	29.8
90°-180°	2301.0	34.5
0°-180°	6671.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1760	1760	1760	1760	1760	
5°	1732	1814	1732	1446	1732	164
15°	1644	1794	1644	1405	1644	462
25°	1425	1657	1425	1391	1425	651
35°	1050	1432	1050	1248	1050	654
45°	771	1159	771	1091	771	589
55°	593	825	593	880	593	513
65°	334	477	334	627	334	334
75°	143	205	143	327	143	155
85°	27	27	27	55	27	34
90°	0	4	0	4	0	2
95°	20	64	20	64	20	23
105°	82	842	82	842	82	86
115°	146	911	146	911	146	144
125°	202	716	202	716	202	179
135°	244	588	244	588	244	188
145°	284	491	284	491	284	178
155°	324	418	324	418	324	149
165°	353	384	353	384	353	100
175°	369	371	369	371	369	35
180°	371	371	371	371	371	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1759.5	1759.5	1759.5	1759.5	1759.5	1759.5	1759.5	1759.5	1759.5	1759.5	1759.5
2.5°	1748.6	1775.3	1775.9	1775.9	1775.9	1775.9	1775.9	1775.3	1748.6	1748.6	1721.3
5°	1732.2	1778.9	1793.6	1800.7	1814.1	1800.7	1793.6	1778.9	1732.2	1712.2	1602.6
7.5°	1715.9	1778.5	1800.4	1812.8	1819.5	1812.8	1800.4	1778.5	1715.9	1626.5	1396.7
10°	1704.9	1778.3	1800.4	1807.4	1814.1	1807.4	1800.4	1778.3	1704.9	1524.9	1336.7
12.5°	1688.6	1767.3	1795.0	1801.9	1808.6	1801.9	1795.0	1767.3	1688.6	1433.8	1293.0
15°	1643.6	1750.3	1773.1	1786.9	1793.6	1786.9	1773.1	1750.3	1643.6	1356.8	1261.7
17.5°	1587.6	1717.0	1747.2	1759.6	1765.0	1759.6	1747.2	1717.0	1587.6	1287.6	1263.0
20°	1554.9	1694.9	1725.4	1732.2	1732.2	1732.2	1725.4	1694.9	1554.9	1254.8	1295.8
22.5°	1511.3	1667.3	1698.1	1699.6	1704.9	1699.6	1698.1	1667.3	1511.3	1216.5	1312.1
25°	1425.3	1605.4	1650.4	1643.9	1657.2	1643.9	1650.4	1605.4	1425.3	1165.3	1309.4
27.5°	1320.3	1547.0	1579.5	1586.3	1586.3	1586.3	1579.5	1547.0	1320.3	1114.9	1282.1
30°	1254.8	1508.2	1541.3	1548.1	1548.1	1548.1	1541.3	1508.2	1254.8	1081.5	1254.8
32.5°	1173.0	1474.4	1503.1	1504.4	1504.4	1504.4	1503.1	1474.4	1173.0	1047.6	1211.2
35°	1050.2	1417.0	1439.0	1438.8	1432.2	1438.8	1439.0	1417.0	1050.2	996.9	1159.4
37.5°	927.5	1343.6	1373.5	1363.8	1357.1	1363.8	1373.5	1343.6	927.5	944.8	1115.7
40°	845.7	1299.1	1329.9	1309.2	1302.6	1309.2	1329.9	1299.1	845.7	905.7	1077.5
42.5°	802.0	1250.1	1280.8	1254.7	1248.0	1254.7	1280.8	1250.1	802.0	867.4	1044.8
45°	770.6	1170.7	1200.3	1172.7	1159.4	1172.7	1200.3	1170.7	770.6	810.6	988.9
47.5°	722.9	1075.0	1117.1	1075.9	1062.5	1075.9	1117.1	1075.0	722.9	752.2	938.4
50°	668.3	1015.1	1057.1	1015.8	1002.5	1015.8	1057.1	1015.1	668.3	708.3	900.2
52.5°	630.1	955.6	991.6	944.9	931.6	944.9	991.6	955.6	630.1	654.2	867.5
55°	593.3	866.7	893.4	845.2	825.2	845.2	893.4	866.7	593.3	573.3	804.7
57.5°	507.4	767.5	795.2	740.1	717.4	740.1	795.2	767.5	507.4	490.1	739.3
60°	463.7	697.1	729.7	674.4	641.1	674.4	729.7	697.1	463.7	430.4	695.6
62.5°	414.6	621.4	664.2	608.9	575.6	608.9	664.2	621.4	414.6	392.0	646.5
65°	334.2	514.2	566.0	510.7	477.4	510.7	566.0	514.2	334.2	347.5	566.0
67.5°	261.9	416.6	474.7	414.0	387.4	414.0	474.7	416.6	261.9	305.9	492.4
70°	218.2	351.6	409.2	354.0	327.3	354.0	409.2	351.6	218.2	278.2	443.3
72.5°	191.0	292.3	354.6	294.1	272.8	294.1	354.6	292.3	191.0	251.0	383.3
75°	143.2	203.2	272.8	217.9	204.6	217.9	272.8	203.2	143.2	203.2	300.1
77.5°	103.7	131.7	192.3	145.8	140.5	145.8	192.3	131.7	103.7	153.0	218.2
80°	81.8	88.5	143.2	102.3	102.3	102.3	143.2	88.5	81.8	115.2	163.7
82.5°	54.6	61.2	99.6	69.4	64.1	69.4	99.6	61.2	54.6	82.6	114.6
85°	27.3	27.3	40.9	27.3	27.3	27.3	40.9	27.3	27.3	40.6	54.6
87.5°	5.5	5.7	11.6	6.2	6.2	6.2	11.6	5.7	5.5	11.0	11.6
90°	0.0	1.1	3.5	3.5	3.5	3.5	3.5	1.1	0.0	1.1	3.5
92.5°	6.5	25.9	82.7	27.5	19.3	27.5	82.7	25.9	6.5	25.9	82.7
95°	19.8	59.7	268.0	99.4	64.1	99.4	268.0	59.7	19.8	59.7	268.0
97.5°	36.8	77.4	454.0	283.7	174.1	283.7	454.0	77.4	36.8	77.4	454.0
100°	48.9	87.7	517.4	471.7	306.5	471.7	517.4	87.7	48.9	87.7	517.4
102.5°	62.0	98.9	506.2	692.7	530.2	692.7	506.2	98.9	62.0	98.9	506.2
105°	81.6	114.6	461.5	879.0	842.5	879.0	461.5	114.6	81.6	114.6	461.5
107.5°	101.1	131.7	418.8	898.4	947.6	898.4	418.8	131.7	101.1	131.7	418.8
110°	114.2	143.8	397.4	876.0	967.2	876.0	397.4	143.8	114.2	143.8	397.4

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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°	127.3	155.1	385.2	837.4	953.2	837.4	385.2	155.1	127.3	155.1	385.2
115°	145.7	173.0	372.9	774.5	911.3	774.5	372.9	173.0	145.7	173.0	372.9
117.5°	163.6	189.6	368.0	714.0	851.8	714.0	368.0	189.6	163.6	189.6	368.0
120°	174.8	199.9	367.1	676.6	809.9	676.6	367.1	199.9	174.8	199.9	367.1
122.5°	186.0	210.1	367.1	646.5	770.7	646.5	367.1	210.1	186.0	210.1	367.1
125°	201.6	225.5	367.1	607.2	715.5	607.2	367.1	225.5	201.6	225.5	367.1
127.5°	215.3	238.4	367.1	576.8	669.1	576.8	367.1	238.4	215.3	238.4	367.1
130°	223.7	247.7	367.1	558.9	642.1	558.9	367.1	247.7	223.7	247.7	367.1
132.5°	232.1	256.1	366.1	544.7	619.7	544.7	366.1	256.1	232.1	256.1	366.1
135°	243.5	267.5	364.7	522.4	588.5	522.4	364.7	267.5	243.5	267.5	364.7
137.5°	254.7	279.8	364.5	501.0	560.0	501.0	364.5	279.8	254.7	279.8	364.5
140°	262.2	287.3	363.6	486.0	539.5	486.0	363.6	287.3	262.2	287.3	363.6
142.5°	271.5	295.7	364.5	471.0	520.9	471.0	364.5	295.7	271.5	295.7	364.5
145°	284.3	306.0	364.7	450.7	490.6	450.7	364.7	306.0	284.3	306.0	364.7
147.5°	297.1	315.6	365.0	432.8	465.4	432.8	365.0	315.6	297.1	315.6	365.0
150°	306.5	321.3	365.9	422.4	448.6	422.4	365.9	321.3	306.5	321.3	365.9
152.5°	313.9	326.9	365.9	413.9	435.6	413.9	365.9	326.9	313.9	326.9	365.9
155°	324.0	335.3	365.9	402.4	418.3	402.4	365.9	335.3	324.0	335.3	365.9
157.5°	334.7	342.4	367.1	395.3	406.2	395.3	367.1	342.4	334.7	342.4	367.1
160°	340.3	347.1	367.1	390.6	399.7	390.6	367.1	347.1	340.3	347.1	367.1
162.5°	345.9	350.9	367.1	386.8	393.2	386.8	367.1	350.9	345.9	350.9	367.1
165°	353.1	356.5	367.1	381.1	384.5	381.1	367.1	356.5	353.1	356.5	367.1
167.5°	359.8	360.8	368.2	377.2	380.1	377.2	368.2	360.8	359.8	360.8	368.2
170°	363.6	363.6	368.2	375.3	376.4	375.3	368.2	363.6	363.6	363.6	368.2
172.5°	365.4	366.3	368.2	373.4	373.6	373.4	368.2	366.3	365.4	366.3	368.2
175°	369.4	368.3	369.4	371.7	370.6	371.7	369.4	368.3	369.4	368.3	369.4
177.5°	370.6	369.7	369.6	371.5	369.6	371.5	369.6	369.7	370.6	369.7	369.6
180°	370.6	370.6	370.6	370.6	370.6	370.6	370.6	370.6	370.6	370.6	370.6

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1759.5	1759.5	1759.5	1759.5	1759.5	1759.5
2.5°	1704.8	1699.5	1704.8	1721.3	1748.6	1748.6
5°	1479.1	1445.8	1479.1	1602.6	1712.2	1732.2
7.5°	1344.6	1333.9	1344.6	1396.7	1626.5	1715.9
10°	1295.8	1295.8	1295.8	1336.7	1524.9	1704.9
12.5°	1290.9	1317.6	1290.9	1293.0	1433.8	1688.6
15°	1371.5	1404.9	1371.5	1261.7	1356.8	1643.6
17.5°	1398.7	1425.3	1398.7	1263.0	1287.6	1587.6
20°	1398.7	1425.3	1398.7	1295.8	1254.8	1554.9
22.5°	1393.2	1419.9	1393.2	1312.1	1216.5	1511.3
25°	1377.9	1391.2	1377.9	1309.4	1165.3	1425.3
27.5°	1350.5	1359.9	1350.5	1282.1	1114.9	1320.3
30°	1323.5	1343.5	1323.5	1254.8	1081.5	1254.8
32.5°	1295.8	1299.8	1295.8	1211.2	1047.6	1173.0
35°	1254.7	1248.0	1254.7	1159.4	996.9	1050.2
37.5°	1199.1	1207.1	1199.1	1115.7	944.8	927.5
40°	1166.5	1179.8	1166.5	1077.5	905.7	845.7
42.5°	1133.7	1147.1	1133.7	1044.8	867.4	802.0
45°	1084.5	1091.2	1084.5	988.9	810.6	770.6
47.5°	1027.2	1033.9	1027.2	938.4	752.2	722.9
50°	989.0	995.7	989.0	900.2	708.3	668.3
52.5°	945.4	952.0	945.4	867.5	654.2	630.1
55°	879.7	879.7	879.7	804.7	573.3	593.3
57.5°	804.9	812.9	804.9	739.3	490.1	507.4
60°	750.5	763.8	750.5	695.6	430.4	463.7
62.5°	701.3	709.3	701.3	646.5	392.0	414.6
65°	620.7	627.4	620.7	566.0	347.5	334.2
67.5°	530.7	536.0	530.7	492.4	305.9	261.9
70°	470.6	470.6	470.6	443.3	278.2	218.2
72.5°	410.7	416.0	410.7	383.3	251.0	191.0
75°	320.7	327.3	320.7	300.1	203.2	143.2
77.5°	230.7	237.3	230.7	218.2	153.0	103.7
80°	170.6	177.3	170.6	163.7	115.2	81.8
82.5°	121.4	122.8	121.4	114.6	82.6	54.6
85°	54.6	54.6	54.6	54.6	40.6	27.3
87.5°	11.6	11.6	11.6	11.6	11.0	5.5
90°	3.5	3.5	3.5	3.5	1.1	0.0
92.5°	27.5	19.3	27.5	82.7	25.9	6.5
95°	99.4	64.1	99.4	268.0	59.7	19.8
97.5°	283.7	174.1	283.7	454.0	77.4	36.8
100°	471.7	306.5	471.7	517.4	87.7	48.9
102.5°	692.7	530.2	692.7	506.2	98.9	62.0
105°	879.0	842.5	879.0	461.5	114.6	81.6
107.5°	898.4	947.6	898.4	418.8	131.7	101.1
110°	876.0	967.2	876.0	397.4	143.8	114.2

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	837.4	953.2	837.4	385.2	155.1	127.3
115°	774.5	911.3	774.5	372.9	173.0	145.7
117.5°	714.0	851.8	714.0	368.0	189.6	163.6
120°	676.6	809.9	676.6	367.1	199.9	174.8
122.5°	646.5	770.7	646.5	367.1	210.1	186.0
125°	607.2	715.5	607.2	367.1	225.5	201.6
127.5°	576.8	669.1	576.8	367.1	238.4	215.3
130°	558.9	642.1	558.9	367.1	247.7	223.7
132.5°	544.7	619.7	544.7	366.1	256.1	232.1
135°	522.4	588.5	522.4	364.7	267.5	243.5
137.5°	501.0	560.0	501.0	364.5	279.8	254.7
140°	486.0	539.5	486.0	363.6	287.3	262.2
142.5°	471.0	520.9	471.0	364.5	295.7	271.5
145°	450.7	490.6	450.7	364.7	306.0	284.3
147.5°	432.8	465.4	432.8	365.0	315.6	297.1
150°	422.4	448.6	422.4	365.9	321.3	306.5
152.5°	413.9	435.6	413.9	365.9	326.9	313.9
155°	402.4	418.3	402.4	365.9	335.3	324.0
157.5°	395.3	406.2	395.3	367.1	342.4	334.7
160°	390.6	399.7	390.6	367.1	347.1	340.3
162.5°	386.8	393.2	386.8	367.1	350.9	345.9
165°	381.1	384.5	381.1	367.1	356.5	353.1
167.5°	377.2	380.1	377.2	368.2	360.8	359.8
170°	375.3	376.4	375.3	368.2	363.6	363.6
172.5°	373.4	373.6	373.4	368.2	366.3	365.4
175°	371.7	370.6	371.7	369.4	368.3	369.4
177.5°	371.5	369.6	371.5	369.6	369.7	370.6
180°	370.6	370.6	370.6	370.6	370.6	370.6

TEST NUMBER: P1191265

CATALOG NUMBER: SQ2-FA-050U-100D-L840-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	19.30	20.32	20.11	21.15	22.18	20.52	21.54	21.34	22.38	23.41
	3H	20.40	21.31	21.23	22.16	23.22	21.78	22.69	22.60	23.54	24.60
	4H	20.76	21.62	21.60	22.47	23.54	22.18	23.04	23.02	23.89	24.96
	6H	20.93	21.73	21.79	22.59	23.67	22.35	23.14	23.20	24.00	25.08
	8H	20.97	21.73	21.83	22.61	23.69	22.37	23.13	23.24	24.01	25.09
	12H	20.97	21.69	21.84	22.57	23.68	22.36	23.09	23.23	23.96	25.07
4H	2H	20.25	21.11	21.09	21.96	23.03	21.16	22.02	22.00	22.87	23.94
	3H	21.63	22.35	22.49	23.23	24.32	22.62	23.34	23.48	24.23	25.31
	4H	22.08	22.73	22.95	23.62	24.73	23.10	23.75	23.97	24.63	25.74
	6H	22.32	22.88	23.20	23.79	24.90	23.33	23.89	24.21	24.80	25.91
	8H	22.38	22.91	23.27	23.81	24.93	23.38	23.91	24.27	24.81	25.94
	12H	22.39	22.86	23.30	23.78	24.92	23.38	23.85	24.29	24.77	25.90
8H	4H	22.49	23.02	23.38	23.92	25.05	23.32	23.85	24.21	24.75	25.88
	6H	22.85	23.28	23.76	24.22	25.35	23.64	24.07	24.55	25.01	26.14
	8H	22.96	23.35	23.89	24.28	25.43	23.73	24.12	24.66	25.05	26.20
	12H	23.01	23.34	23.94	24.27	25.47	23.75	24.09	24.68	25.02	26.22
12H	4H	22.50	22.98	23.41	23.90	25.03	23.30	23.77	24.20	24.69	25.82
	6H	22.92	23.30	23.85	24.24	25.39	23.66	24.04	24.59	24.98	26.12
	8H	23.07	23.41	24.00	24.34	25.53	23.78	24.12	24.71	25.04	26.24

END OF REPORT