

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: P1191271

Luminaire Tested: SQ2-FA-050U-125D-L840-UNV-STD-W-4

Issue Date: 9/23/2025

Test Information

Test Method: LM-79-2019
Report Number: P1191271
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-125D-L840-UNV-STD-W-4
Description: CORELITE SQ2 LED LUMINAIRE
FROSTED CONTINUOUS ASYMMETRIC ROLL LENS
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

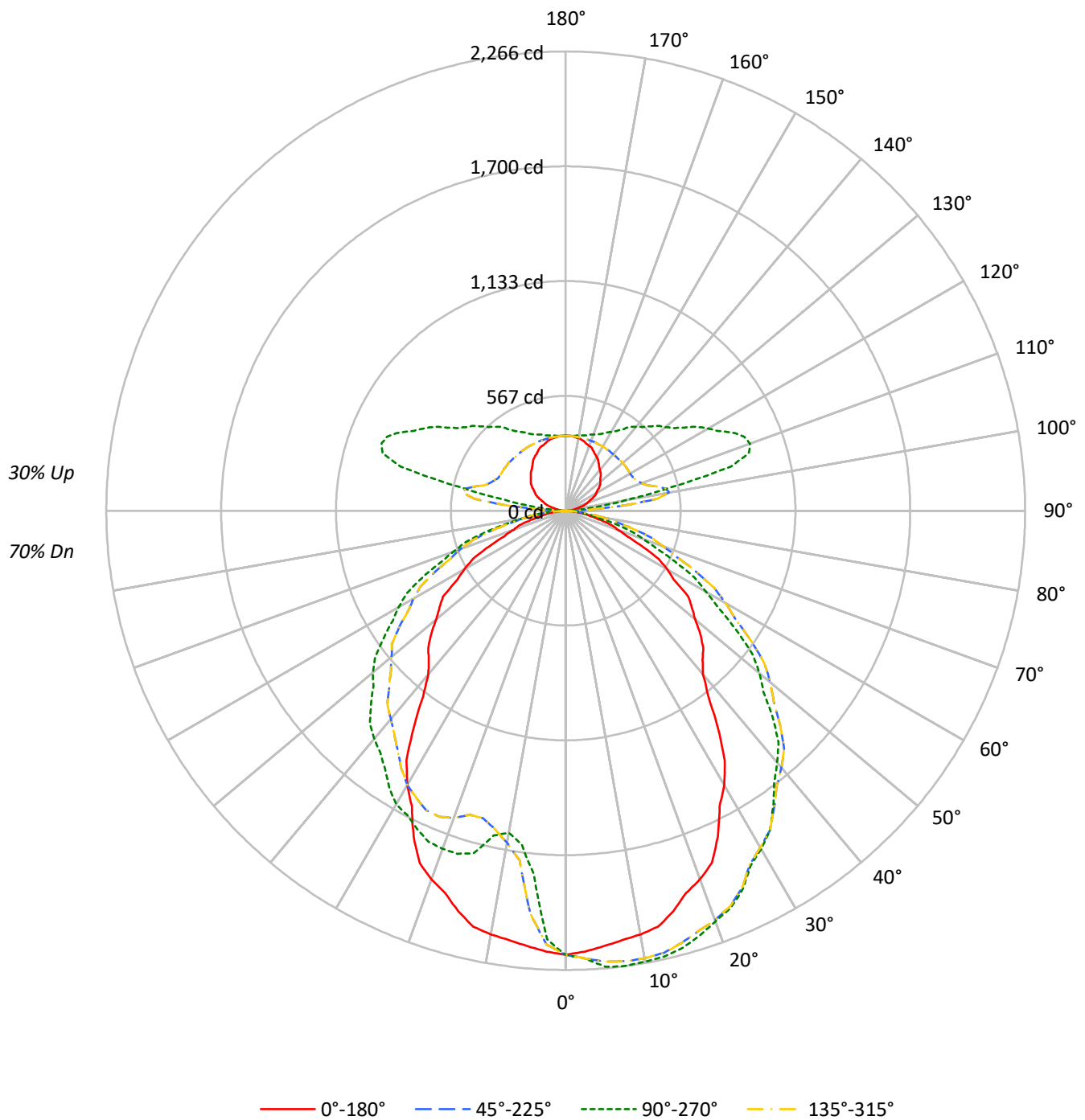
Lumens per Lamp: N/A
Luminaire Lumens: 7742.7 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
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: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-L840-UNV-STD-W-4

Luminous Intensity Polar Plot



TEST NUMBER: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-L840-UNV-STD-W-4

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	112	112	112	112	106	106	106	106	95	95	95	84	84	84	75	75	75
1	103	98	94	91	97	93	90	86	83	81	78	75	73	71	66	65	64
2	93	86	80	74	88	81	76	71	73	69	65	66	62	59	59	56	54
3	85	76	68	62	80	72	65	59	65	59	55	58	54	50	52	49	46
4	78	67	59	52	74	64	56	51	57	51	47	52	47	43	46	43	39
5	72	60	51	45	68	57	49	44	51	45	40	46	41	37	42	38	34
6	66	54	45	39	62	51	44	38	46	40	35	42	37	33	38	34	30
7	61	49	40	35	58	46	39	33	42	36	31	38	33	29	35	30	27
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	27	24
9	53	40	33	27	50	39	32	27	35	29	25	32	27	23	29	25	22
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	35372	35372	35372	35372
5°	34958	36610	34958	29177
10°	34805	37033	34805	26452
15°	34208	37331	34208	29240
20°	33266	37060	33266	30495
25°	31618	36761	31618	30861
30°	29131	35937	29131	31189
35°	25775	35148	25775	30630
40°	22194	34185	22194	30964
45°	21911	32963	21911	31024
50°	20904	31355	20904	31142
55°	20797	28924	20797	30835
60°	18645	25775	18645	30713
65°	15897	22709	15897	29845
70°	12826	19242	12826	27659
75°	11123	15889	11123	25427
80°	9475	11846	9475	20530
85°	6299	6299	6299	12579

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 34125 cd/sqm

TEST NUMBER: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-L840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.1	2.5
10°-20°	550.8	7.1
20°-30°	836.5	10.8
30°-40°	982.0	12.7
40°-50°	996.5	12.9
50°-60°	873.0	11.3
60°-70°	619.3	8.0
70°-80°	318.9	4.1
80°-90°	67.4	0.9
90°-100°	147.6	1.9
100°-110°	468.1	6.0
110°-120°	459.0	5.9
120°-130°	373.5	4.8
130°-140°	304.6	3.9
140°-150°	237.4	3.1
150°-160°	171.1	2.2
160°-170°	104.5	1.3
170°-180°	35.3	0.5
0°-30°	1584.5	20.5
0°-40°	2566.5	33.1
0°-60°	4436.0	57.3
0°-90°	5441.5	70.3
90°-120°	1074.8	13.9
90°-150°	1990.3	25.7
90°-180°	2301.0	29.7
0°-180°	7742.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2191	2191	2191	2191	2191	
5°	2157	2259	2157	1800	2157	205
15°	2046	2233	2046	1749	2046	575
25°	1775	2064	1775	1732	1775	810
35°	1308	1783	1308	1554	1308	815
45°	960	1444	960	1359	960	734
55°	739	1028	739	1095	739	639
65°	416	594	416	781	416	416
75°	178	255	178	408	178	193
85°	34	34	34	68	34	42
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	

TEST NUMBER: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-L840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2190.8	2190.8	2190.8	2190.8	2190.8	2190.8	2190.8	2190.8	2190.8	2190.8	2190.8
2.5°	2177.3	2210.5	2211.2	2211.2	2211.2	2211.2	2211.2	2210.5	2177.3	2177.3	2143.3
5°	2156.9	2215.0	2233.3	2242.2	2258.8	2242.2	2233.3	2215.0	2156.9	2132.0	1995.5
7.5°	2136.5	2214.5	2241.8	2257.3	2265.6	2257.3	2241.8	2214.5	2136.5	2025.2	1739.1
10°	2122.9	2214.2	2241.8	2250.5	2258.8	2250.5	2241.8	2214.2	2122.9	1898.7	1664.4
12.5°	2102.5	2200.5	2235.0	2243.7	2252.0	2243.7	2235.0	2200.5	2102.5	1785.4	1610.0
15°	2046.5	2179.3	2207.8	2225.0	2233.3	2225.0	2207.8	2179.3	2046.5	1689.5	1571.0
17.5°	1976.9	2137.9	2175.6	2191.0	2197.6	2191.0	2175.6	2137.9	1976.9	1603.2	1572.7
20°	1936.1	2110.5	2148.4	2156.9	2156.9	2156.9	2148.4	2110.5	1936.1	1562.5	1613.4
22.5°	1881.7	2076.0	2114.4	2116.3	2122.9	2116.3	2114.4	2076.0	1881.7	1514.8	1633.8
25°	1774.8	1998.9	2055.0	2046.9	2063.5	2046.9	2055.0	1998.9	1774.8	1450.9	1630.4
27.5°	1644.0	1926.3	1966.7	1975.2	1975.2	1975.2	1966.7	1926.3	1644.0	1388.3	1596.4
30°	1562.5	1878.0	1919.1	1927.6	1927.6	1927.6	1919.1	1878.0	1562.5	1346.6	1562.5
32.5°	1460.6	1835.9	1871.6	1873.3	1873.3	1873.3	1871.6	1835.9	1460.6	1304.5	1508.1
35°	1307.7	1764.4	1791.7	1791.5	1783.2	1791.5	1791.7	1764.4	1307.7	1241.3	1443.6
37.5°	1154.9	1673.0	1710.2	1698.1	1689.8	1698.1	1710.2	1673.0	1154.9	1176.5	1389.2
40°	1053.0	1617.6	1655.9	1630.2	1621.9	1630.2	1655.9	1617.6	1053.0	1127.7	1341.7
42.5°	998.6	1556.6	1594.7	1562.3	1554.0	1562.3	1594.7	1556.6	998.6	1080.0	1300.9
45°	959.6	1457.7	1494.5	1460.2	1443.6	1460.2	1494.5	1457.7	959.6	1009.4	1231.3
47.5°	900.1	1338.5	1390.9	1339.6	1323.0	1339.6	1390.9	1338.5	900.1	936.6	1168.5
50°	832.2	1263.9	1316.2	1264.9	1248.3	1264.9	1316.2	1263.9	832.2	882.0	1120.9
52.5°	784.6	1189.8	1234.7	1176.6	1160.0	1176.6	1234.7	1189.8	784.6	814.5	1080.1
55°	738.8	1079.2	1112.4	1052.4	1027.5	1052.4	1112.4	1079.2	738.8	713.9	1002.0
57.5°	631.8	955.6	990.1	921.6	893.3	921.6	990.1	955.6	631.8	610.2	920.5
60°	577.4	868.0	908.6	839.7	798.2	839.7	908.6	868.0	577.4	535.9	866.1
62.5°	516.3	773.7	827.1	758.2	716.7	758.2	827.1	773.7	516.3	488.1	805.0
65°	416.1	640.3	704.8	635.9	594.4	635.9	704.8	640.3	416.1	432.7	704.8
67.5°	326.1	518.7	591.0	515.5	482.3	515.5	591.0	518.7	326.1	380.9	613.1
70°	271.7	437.8	509.5	440.8	407.6	440.8	509.5	437.8	271.7	346.5	552.0
72.5°	237.8	364.0	441.6	366.2	339.7	366.2	441.6	364.0	237.8	312.5	477.2
75°	178.3	253.1	339.7	271.4	254.7	271.4	339.7	253.1	178.3	253.1	373.6
77.5°	129.1	163.9	239.5	181.6	174.9	181.6	239.5	163.9	129.1	190.5	271.7
80°	101.9	110.2	178.3	127.4	127.4	127.4	178.3	110.2	101.9	143.4	203.8
82.5°	67.9	76.2	124.0	86.5	79.8	86.5	124.0	76.2	67.9	102.8	142.7
85°	34.0	34.0	50.9	34.0	34.0	34.0	50.9	34.0	34.0	50.6	67.9
87.5°	6.8	7.0	14.3	7.5	7.5	7.5	14.3	7.0	6.8	13.7	14.3
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

TEST NUMBER: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-L840-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°	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

TEST NUMBER: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-L840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2190.8	2190.8	2190.8	2190.8	2190.8	2190.8
2.5°	2122.8	2116.1	2122.8	2143.3	2177.3	2177.3
5°	1841.7	1800.2	1841.7	1995.5	2132.0	2156.9
7.5°	1674.3	1661.0	1674.3	1739.1	2025.2	2136.5
10°	1613.4	1613.4	1613.4	1664.4	1898.7	2122.9
12.5°	1607.4	1640.6	1607.4	1610.0	1785.4	2102.5
15°	1707.8	1749.3	1707.8	1571.0	1689.5	2046.5
17.5°	1741.5	1774.8	1741.5	1572.7	1603.2	1976.9
20°	1741.5	1774.8	1741.5	1613.4	1562.5	1936.1
22.5°	1734.7	1768.0	1734.7	1633.8	1514.8	1881.7
25°	1715.7	1732.3	1715.7	1630.4	1450.9	1774.8
27.5°	1681.6	1693.2	1681.6	1596.4	1388.3	1644.0
30°	1647.9	1672.9	1647.9	1562.5	1346.6	1562.5
32.5°	1613.5	1618.5	1613.5	1508.1	1304.5	1460.6
35°	1562.3	1554.0	1562.3	1443.6	1241.3	1307.7
37.5°	1493.1	1503.0	1493.1	1389.2	1176.5	1154.9
40°	1452.4	1469.1	1452.4	1341.7	1127.7	1053.0
42.5°	1411.7	1428.3	1411.7	1300.9	1080.0	998.6
45°	1350.4	1358.7	1350.4	1231.3	1009.4	959.6
47.5°	1279.0	1287.3	1279.0	1168.5	936.6	900.1
50°	1231.5	1239.8	1231.5	1120.9	882.0	832.2
52.5°	1177.1	1185.4	1177.1	1080.1	814.5	784.6
55°	1095.4	1095.4	1095.4	1002.0	713.9	738.8
57.5°	1002.2	1012.2	1002.2	920.5	610.2	631.8
60°	934.5	951.1	934.5	866.1	535.9	577.4
62.5°	873.2	883.1	873.2	805.0	488.1	516.3
65°	772.9	781.2	772.9	704.8	432.7	416.1
67.5°	660.8	667.4	660.8	613.1	380.9	326.1
70°	585.9	585.9	585.9	552.0	346.5	271.7
72.5°	511.3	518.0	511.3	477.2	312.5	237.8
75°	399.3	407.6	399.3	373.6	253.1	178.3
77.5°	287.2	295.5	287.2	271.7	190.5	129.1
80°	212.5	220.8	212.5	203.8	143.4	101.9
82.5°	151.2	152.8	151.2	142.7	102.8	67.9
85°	67.9	67.9	67.9	67.9	50.6	34.0
87.5°	14.3	14.3	14.3	14.3	13.7	6.8
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

TEST NUMBER: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-L840-UNV-STD-W-4

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: P1191271

CATALOG NUMBER: SQ2-FA-050U-125D-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	20.43	21.51	21.19	22.29	23.24	21.66	22.73	22.42	23.52	24.47
	3H	21.54	22.50	22.31	23.30	24.28	22.92	23.88	23.69	24.67	25.65
	4H	21.90	22.81	22.69	23.61	24.60	23.32	24.23	24.11	25.03	26.02
	6H	22.07	22.91	22.88	23.72	24.73	23.49	24.33	24.29	25.14	26.14
	8H	22.12	22.92	22.93	23.74	24.75	23.52	24.32	24.33	25.15	26.15
	12H	22.12	22.88	22.94	23.70	24.74	23.51	24.27	24.33	25.10	26.13
4H	2H	21.39	22.30	22.18	23.10	24.09	22.30	23.21	23.09	24.01	25.00
	3H	22.77	23.53	23.58	24.37	25.38	23.77	24.53	24.58	25.36	26.37
	4H	23.23	23.92	24.05	24.75	25.79	24.24	24.93	25.07	25.77	26.80
	6H	23.47	24.06	24.31	24.92	25.96	24.48	25.07	25.32	25.93	26.97
	8H	23.53	24.09	24.37	24.94	25.99	24.53	25.09	25.38	25.94	27.00
	12H	23.54	24.04	24.41	24.92	25.98	24.53	25.03	25.39	25.91	26.96
8H	4H	23.65	24.20	24.49	25.06	26.11	24.47	25.03	25.32	25.88	26.94
	6H	24.00	24.46	24.87	25.36	26.41	24.79	25.25	25.66	26.15	27.20
	8H	24.12	24.52	25.00	25.42	26.49	24.89	25.30	25.77	26.19	27.26
	12H	24.16	24.52	25.05	25.40	26.53	24.91	25.27	25.80	26.15	27.28
12H	4H	23.66	24.16	24.52	25.03	26.09	24.45	24.95	25.31	25.83	26.88
	6H	24.07	24.48	24.96	25.37	26.44	24.81	25.22	25.70	26.11	27.18
	8H	24.23	24.59	25.11	25.47	26.59	24.94	25.30	25.82	26.18	27.30