

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: P1191269

Luminaire Tested: SQ2-FA-050U-125D-L830-UNV-STD-W-4

Issue Date: 9/23/2025

Test Information

Test Method: LM-79-2019
Report Number: P1191269
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-L830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

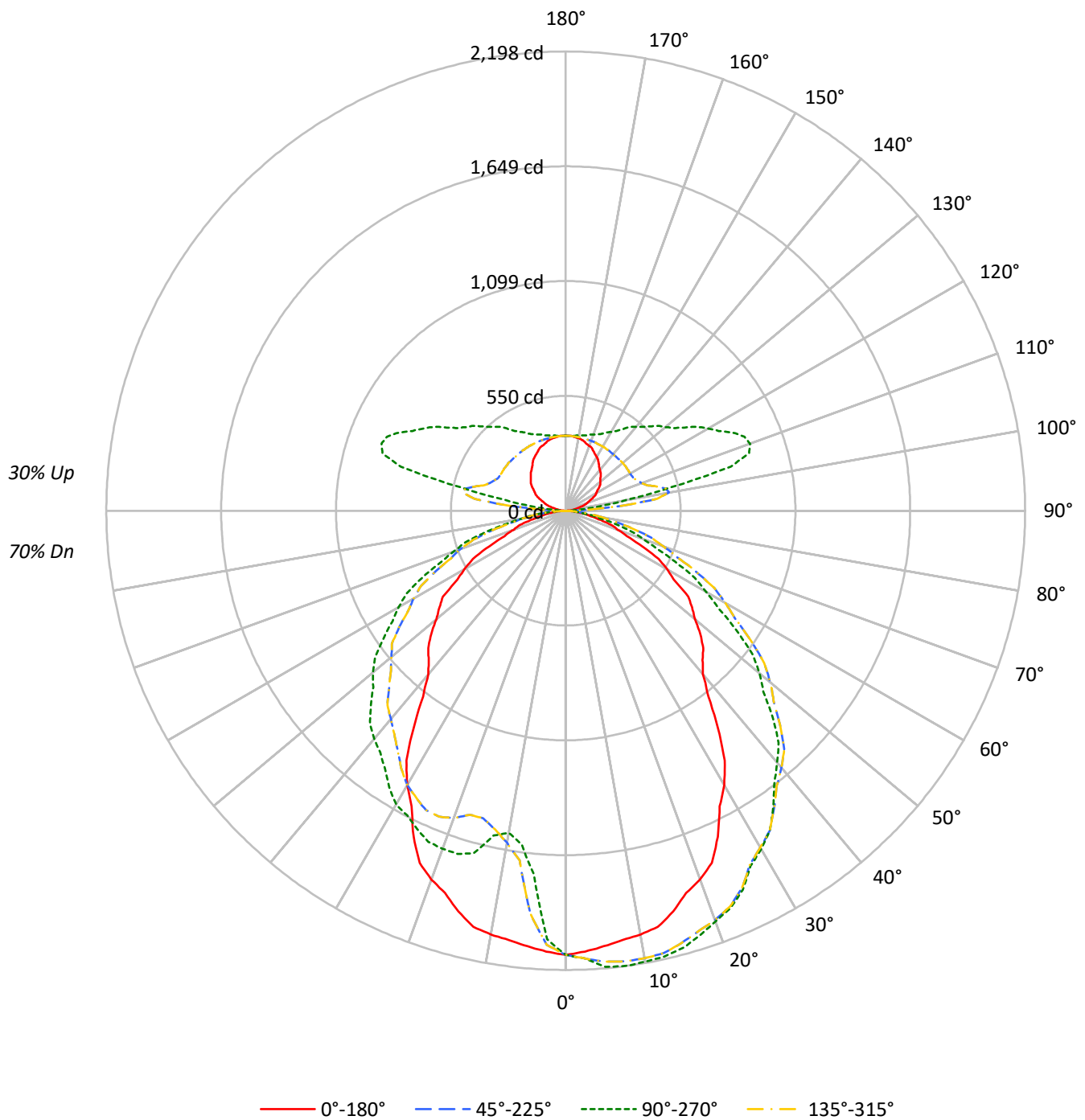
Lumens per Lamp: N/A
Luminaire Lumens: 7511.8 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-UNV-STD-W-4

Luminous Intensity Polar Plot



TEST NUMBER: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
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°	34318	34318	34318	34318
5°	33914	35517	33914	28306
10°	33767	35928	33767	25663
15°	33188	36217	33188	28368
20°	32275	35953	32275	29584
25°	30674	35664	30674	29940
30°	28262	34865	28262	30259
35°	25007	34101	25007	29715
40°	21532	33164	21532	30039
45°	21256	31979	21256	30097
50°	20281	30418	20281	30212
55°	20175	28059	20175	29917
60°	18090	25007	18090	29796
65°	15423	22032	15423	28955
70°	12444	18666	12444	26833
75°	10792	15421	10792	24666
80°	9196	11492	9196	19916
85°	6113	6113	6113	12208

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 33109 cd/sqm

TEST NUMBER: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.2	2.5
10°-20°	534.4	7.1
20°-30°	811.6	10.8
30°-40°	952.7	12.7
40°-50°	966.8	12.9
50°-60°	846.9	11.3
60°-70°	600.8	8.0
70°-80°	309.4	4.1
80°-90°	65.4	0.9
90°-100°	143.2	1.9
100°-110°	454.2	6.0
110°-120°	445.3	5.9
120°-130°	362.4	4.8
130°-140°	295.5	3.9
140°-150°	230.4	3.1
150°-160°	166.0	2.2
160°-170°	101.4	1.3
170°-180°	34.2	0.5
0°-30°	1537.2	20.5
0°-40°	2489.9	33.1
0°-60°	4303.7	57.3
0°-90°	5279.2	70.3
90°-120°	1042.7	13.9
90°-150°	1930.9	25.7
90°-180°	2233.0	29.7
0°-180°	7511.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2126	2126	2126	2126	2126	
5°	2092	2191	2092	1746	2092	199
15°	1986	2167	1986	1697	1986	558
25°	1722	2002	1722	1681	1722	786
35°	1269	1730	1269	1508	1269	790
45°	931	1400	931	1318	931	712
55°	717	997	717	1063	717	620
65°	404	577	404	758	404	403
75°	173	247	173	395	173	187
85°	33	33	33	66	33	41
90°	0	3	0	3	0	2
95°	19	62	19	62	19	22
105°	79	817	79	817	79	83
115°	141	884	141	884	141	139
125°	196	694	196	694	196	174
135°	236	571	236	571	236	182
145°	276	476	276	476	276	173
155°	314	406	314	406	314	145
165°	343	373	343	373	343	97
175°	358	360	358	360	358	34
180°	360	360	360	360	360	

TEST NUMBER: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2112.3	2144.5	2145.3	2145.3	2145.3	2145.3	2145.3	2144.5	2112.3	2112.3	2079.4
5°	2092.5	2148.9	2166.7	2175.3	2175.3	2175.3	2166.7	2148.9	2092.5	2068.4	1936.0
7.5°	2072.8	2148.5	2174.9	2189.9	2198.0	2189.9	2174.9	2148.5	2072.8	1964.8	1687.2
10°	2059.6	2148.2	2174.9	2183.4	2191.4	2183.4	2174.9	2148.2	2059.6	1842.1	1614.7
12.5°	2039.8	2134.9	2168.3	2176.8	2184.8	2176.8	2168.3	2134.9	2039.8	1732.1	1562.0
15°	1985.5	2114.3	2142.0	2158.6	2166.7	2158.6	2142.0	2114.3	1985.5	1639.1	1524.1
17.5°	1917.9	2074.2	2110.7	2125.6	2132.1	2125.6	2110.7	2074.2	1917.9	1555.4	1525.7
20°	1878.4	2047.5	2084.3	2092.5	2092.5	2092.5	2084.3	2047.5	1878.4	1515.9	1565.3
22.5°	1825.6	2014.1	2051.4	2053.2	2059.6	2053.2	2051.4	2014.1	1825.6	1469.6	1585.1
25°	1721.8	1939.3	1993.7	1985.8	2001.9	1985.8	1993.7	1939.3	1721.8	1407.7	1581.8
27.5°	1595.0	1868.8	1908.0	1916.2	1916.2	1916.2	1908.0	1868.8	1595.0	1346.8	1548.8
30°	1515.9	1822.0	1861.9	1870.1	1870.1	1870.1	1861.9	1822.0	1515.9	1306.4	1515.9
32.5°	1417.0	1781.1	1815.7	1817.4	1817.4	1817.4	1815.7	1781.1	1417.0	1265.6	1463.1
35°	1268.7	1711.8	1738.3	1738.1	1730.1	1738.1	1738.3	1711.8	1268.7	1204.3	1400.5
37.5°	1120.4	1623.1	1659.2	1647.5	1639.4	1647.5	1659.2	1623.1	1120.4	1141.4	1347.8
40°	1021.6	1569.3	1606.5	1581.6	1573.5	1581.6	1606.5	1569.3	1021.6	1094.1	1301.7
42.5°	968.8	1510.2	1547.2	1515.7	1507.6	1515.7	1547.2	1510.2	968.8	1047.8	1262.1
45°	930.9	1414.3	1450.0	1416.6	1400.5	1416.6	1450.0	1414.3	930.9	979.3	1194.6
47.5°	873.3	1298.6	1349.4	1299.7	1283.5	1299.7	1349.4	1298.6	873.3	908.7	1133.6
50°	807.4	1226.2	1276.9	1227.2	1211.0	1227.2	1276.9	1226.2	807.4	855.7	1087.5
52.5°	761.2	1154.3	1197.9	1141.5	1125.4	1141.5	1197.9	1154.3	761.2	790.2	1047.9
55°	716.7	1047.0	1079.2	1021.0	996.8	1021.0	1079.2	1047.0	716.7	692.6	972.1
57.5°	612.9	927.1	960.6	894.1	866.7	894.1	960.6	927.1	612.9	592.0	893.0
60°	560.2	842.1	881.5	814.7	774.4	814.7	881.5	842.1	560.2	519.9	840.3
62.5°	500.9	750.6	802.4	735.6	695.3	735.6	802.4	750.6	500.9	473.5	781.0
65°	403.7	621.2	683.8	617.0	576.7	617.0	683.8	621.2	403.7	419.8	683.8
67.5°	316.4	503.2	573.4	500.2	467.9	500.2	573.4	503.2	316.4	369.5	594.8
70°	263.6	424.7	494.3	427.7	395.4	427.7	494.3	424.7	263.6	336.1	535.5
72.5°	230.7	353.1	428.4	355.3	329.5	355.3	428.4	353.1	230.7	303.2	463.0
75°	173.0	245.5	329.5	263.3	247.2	263.3	329.5	245.5	173.0	245.5	362.5
77.5°	125.2	159.1	232.3	176.2	169.7	176.2	232.3	159.1	125.2	184.8	263.6
80°	98.9	106.9	173.0	123.6	123.6	123.6	173.0	106.9	98.9	139.1	197.7
82.5°	65.9	74.0	120.3	83.9	77.4	83.9	120.3	74.0	65.9	99.7	138.4
85°	33.0	33.0	49.4	33.0	33.0	33.0	49.4	33.0	33.0	49.1	65.9
87.5°	6.6	6.8	13.9	7.3	7.3	7.3	13.9	6.8	6.6	13.3	13.9
90°	0.0	1.1	3.4	3.4	3.4	3.4	3.4	1.1	0.0	1.1	3.4
92.5°	6.3	25.1	80.3	26.7	18.8	26.7	80.3	25.1	6.3	25.1	80.3
95°	19.2	57.9	260.0	96.4	62.2	96.4	260.0	57.9	19.2	57.9	260.0
97.5°	35.7	75.1	440.5	275.2	168.9	275.2	440.5	75.1	35.7	75.1	440.5
100°	47.5	85.1	502.0	457.6	297.3	457.6	502.0	85.1	47.5	85.1	502.0
102.5°	60.1	96.0	491.1	672.0	514.4	672.0	491.1	96.0	60.1	96.0	491.1
105°	79.1	111.2	447.7	852.8	817.4	852.8	447.7	111.2	79.1	111.2	447.7
107.5°	98.1	127.8	406.3	871.6	919.4	871.6	406.3	127.8	98.1	127.8	406.3
110°	110.8	139.5	385.5	849.9	938.3	849.9	385.5	139.5	110.8	139.5	385.5

TEST NUMBER: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-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°	123.5	150.4	373.8	812.5	924.8	812.5	373.8	150.4	123.5	150.4	373.8
115°	141.3	167.8	361.8	751.4	884.1	751.4	361.8	167.8	141.3	167.8	361.8
117.5°	158.7	183.9	357.0	692.7	826.4	692.7	357.0	183.9	158.7	183.9	357.0
120°	169.6	193.9	356.1	656.4	785.7	656.4	356.1	193.9	169.6	193.9	356.1
122.5°	180.4	203.9	356.1	627.2	747.7	627.2	356.1	203.9	180.4	203.9	356.1
125°	195.6	218.8	356.1	589.1	694.2	589.1	356.1	218.8	195.6	218.8	356.1
127.5°	208.9	231.3	356.1	559.6	649.2	559.6	356.1	231.3	208.9	231.3	356.1
130°	217.1	240.3	356.1	542.2	622.9	542.2	356.1	240.3	217.1	240.3	356.1
132.5°	225.2	248.4	355.2	528.5	601.2	528.5	355.2	248.4	225.2	248.4	355.2
135°	236.3	259.5	353.9	506.8	570.9	506.8	353.9	259.5	236.3	259.5	353.9
137.5°	247.1	271.5	353.6	486.1	543.3	486.1	353.6	271.5	247.1	271.5	353.6
140°	254.4	278.7	352.7	471.5	523.4	471.5	352.7	278.7	254.4	278.7	352.7
142.5°	263.4	286.9	353.6	456.9	505.4	456.9	353.6	286.9	263.4	286.9	353.6
145°	275.9	296.9	353.9	437.3	476.0	437.3	353.9	296.9	275.9	296.9	353.9
147.5°	288.3	306.2	354.1	419.9	451.5	419.9	354.1	306.2	288.3	306.2	354.1
150°	297.3	311.7	355.0	409.8	435.3	409.8	355.0	311.7	297.3	311.7	355.0
152.5°	304.6	317.2	355.0	401.6	422.6	401.6	355.0	317.2	304.6	317.2	355.0
155°	314.3	325.3	355.0	390.4	405.9	390.4	355.0	325.3	314.3	325.3	355.0
157.5°	324.7	332.2	356.1	383.5	394.1	383.5	356.1	332.2	324.7	332.2	356.1
160°	330.1	336.7	356.1	378.9	387.8	378.9	356.1	336.7	330.1	336.7	356.1
162.5°	335.5	340.4	356.1	375.3	381.4	375.3	356.1	340.4	335.5	340.4	356.1
165°	342.6	345.9	356.1	369.8	373.1	369.8	356.1	345.9	342.6	345.9	356.1
167.5°	349.1	350.0	357.3	365.9	368.8	365.9	357.3	350.0	349.1	350.0	357.3
170°	352.7	352.7	357.3	364.1	365.2	364.1	357.3	352.7	352.7	352.7	357.3
172.5°	354.5	355.4	357.3	362.2	362.5	362.2	357.3	355.4	354.5	355.4	357.3
175°	358.4	357.3	358.4	360.6	359.5	360.6	358.4	357.3	358.4	357.3	358.4
177.5°	359.5	358.6	358.6	360.4	358.6	360.4	358.6	358.6	359.5	358.6	358.6
180°	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5

TEST NUMBER: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2125.5	2125.5	2125.5	2125.5	2125.5	2125.5
2.5°	2059.4	2053.0	2059.4	2079.4	2112.3	2112.3
5°	1786.8	1746.5	1786.8	1936.0	2068.4	2092.5
7.5°	1624.3	1611.4	1624.3	1687.2	1964.8	2072.8
10°	1565.3	1565.3	1565.3	1614.7	1842.1	2059.6
12.5°	1559.4	1591.7	1559.4	1562.0	1732.1	2039.8
15°	1656.8	1697.1	1656.8	1524.1	1639.1	1985.5
17.5°	1689.6	1721.8	1689.6	1525.7	1555.4	1917.9
20°	1689.6	1721.8	1689.6	1565.3	1515.9	1878.4
22.5°	1683.0	1715.2	1683.0	1585.1	1469.6	1825.6
25°	1664.5	1680.6	1664.5	1581.8	1407.7	1721.8
27.5°	1631.5	1642.7	1631.5	1548.8	1346.8	1595.0
30°	1598.8	1623.0	1598.8	1515.9	1306.4	1515.9
32.5°	1565.4	1570.2	1565.4	1463.1	1265.6	1417.0
35°	1515.7	1507.6	1515.7	1400.5	1204.3	1268.7
37.5°	1448.5	1458.2	1448.5	1347.8	1141.4	1120.4
40°	1409.1	1425.2	1409.1	1301.7	1094.1	1021.6
42.5°	1369.6	1385.7	1369.6	1262.1	1047.8	968.8
45°	1310.1	1318.1	1310.1	1194.6	979.3	930.9
47.5°	1240.9	1248.9	1240.9	1133.6	908.7	873.3
50°	1194.7	1202.8	1194.7	1087.5	855.7	807.4
52.5°	1142.0	1150.1	1142.0	1047.9	790.2	761.2
55°	1062.8	1062.8	1062.8	972.1	692.6	716.7
57.5°	972.3	982.0	972.3	893.0	592.0	612.9
60°	906.6	922.7	906.6	840.3	519.9	560.2
62.5°	847.1	856.8	847.1	781.0	473.5	500.9
65°	749.9	757.9	749.9	683.8	419.8	403.7
67.5°	641.1	647.5	641.1	594.8	369.5	316.4
70°	568.4	568.4	568.4	535.5	336.1	263.6
72.5°	496.1	502.5	496.1	463.0	303.2	230.7
75°	387.4	395.4	387.4	362.5	245.5	173.0
77.5°	278.6	286.7	278.6	263.6	184.8	125.2
80°	206.1	214.2	206.1	197.7	139.1	98.9
82.5°	146.7	148.3	146.7	138.4	99.7	65.9
85°	65.9	65.9	65.9	65.9	49.1	33.0
87.5°	13.9	13.9	13.9	13.9	13.3	6.6
90°	3.4	3.4	3.4	3.4	1.1	0.0
92.5°	26.7	18.8	26.7	80.3	25.1	6.3
95°	96.4	62.2	96.4	260.0	57.9	19.2
97.5°	275.2	168.9	275.2	440.5	75.1	35.7
100°	457.6	297.3	457.6	502.0	85.1	47.5
102.5°	672.0	514.4	672.0	491.1	96.0	60.1
105°	852.8	817.4	852.8	447.7	111.2	79.1
107.5°	871.6	919.4	871.6	406.3	127.8	98.1
110°	849.9	938.3	849.9	385.5	139.5	110.8

TEST NUMBER: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	812.5	924.8	812.5	373.8	150.4	123.5
115°	751.4	884.1	751.4	361.8	167.8	141.3
117.5°	692.7	826.4	692.7	357.0	183.9	158.7
120°	656.4	785.7	656.4	356.1	193.9	169.6
122.5°	627.2	747.7	627.2	356.1	203.9	180.4
125°	589.1	694.2	589.1	356.1	218.8	195.6
127.5°	559.6	649.2	559.6	356.1	231.3	208.9
130°	542.2	622.9	542.2	356.1	240.3	217.1
132.5°	528.5	601.2	528.5	355.2	248.4	225.2
135°	506.8	570.9	506.8	353.9	259.5	236.3
137.5°	486.1	543.3	486.1	353.6	271.5	247.1
140°	471.5	523.4	471.5	352.7	278.7	254.4
142.5°	456.9	505.4	456.9	353.6	286.9	263.4
145°	437.3	476.0	437.3	353.9	296.9	275.9
147.5°	419.9	451.5	419.9	354.1	306.2	288.3
150°	409.8	435.3	409.8	355.0	311.7	297.3
152.5°	401.6	422.6	401.6	355.0	317.2	304.6
155°	390.4	405.9	390.4	355.0	325.3	314.3
157.5°	383.5	394.1	383.5	356.1	332.2	324.7
160°	378.9	387.8	378.9	356.1	336.7	330.1
162.5°	375.3	381.4	375.3	356.1	340.4	335.5
165°	369.8	373.1	369.8	356.1	345.9	342.6
167.5°	365.9	368.8	365.9	357.3	350.0	349.1
170°	364.1	365.2	364.1	357.3	352.7	352.7
172.5°	362.2	362.5	362.2	357.3	355.4	354.5
175°	360.6	359.5	360.6	358.4	357.3	358.4
177.5°	360.4	358.6	360.4	358.6	358.6	359.5
180°	359.5	359.5	359.5	359.5	359.5	359.5

TEST NUMBER: P1191269

CATALOG NUMBER: SQ2-FA-050U-125D-L830-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	20.33	21.40	21.09	22.19	23.13	21.55	22.63	22.31	23.41	24.36
	3H	21.43	22.40	22.21	23.19	24.17	22.81	23.78	23.59	24.57	25.55
	4H	21.80	22.71	22.59	23.51	24.50	23.21	24.12	24.00	24.92	25.91
	6H	21.97	22.81	22.77	23.62	24.62	23.38	24.22	24.19	25.03	26.04
	8H	22.01	22.81	22.83	23.64	24.65	23.41	24.21	24.23	25.04	26.05
	12H	22.01	22.78	22.84	23.60	24.63	23.41	24.17	24.23	24.99	26.02
4H	2H	21.28	22.19	22.08	22.99	23.98	22.19	23.10	22.99	23.91	24.90
	3H	22.67	23.43	23.48	24.26	25.27	23.66	24.42	24.47	25.26	26.27
	4H	23.12	23.81	23.95	24.65	25.68	24.14	24.83	24.96	25.66	26.70
	6H	23.36	23.96	24.20	24.82	25.86	24.37	24.97	25.21	25.83	26.87
	8H	23.43	23.98	24.27	24.84	25.89	24.43	24.98	25.27	25.84	26.89
	12H	23.44	23.94	24.30	24.81	25.87	24.43	24.93	25.29	25.80	26.86
8H	4H	23.54	24.10	24.38	24.95	26.00	24.37	24.92	25.21	25.78	26.83
	6H	23.89	24.35	24.77	25.25	26.30	24.69	25.15	25.56	26.04	27.10
	8H	24.01	24.42	24.89	25.31	26.38	24.78	25.19	25.66	26.08	27.15
	12H	24.06	24.42	24.94	25.30	26.42	24.81	25.16	25.69	26.05	27.17
12H	4H	23.55	24.05	24.42	24.93	25.99	24.35	24.85	25.21	25.72	26.78
	6H	23.97	24.38	24.85	25.27	26.34	24.71	25.12	25.59	26.01	27.08
	8H	24.12	24.48	25.01	25.36	26.49	24.83	25.19	25.72	26.07	27.20