

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: P1191359

Luminaire Tested: SQ2-FA-125U-100D-L830-UNV-STD-W-4

Issue Date: 9/23/2025

Test Information

Test Method: LM-79-2019
Report Number: P1191359
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-125U-100D-L830-UNV-STD-W-4
Description: CORELITE SQ2 LED LUMINAIRE
FROSTED CONTINUOUS ASYMMETRIC ROLL LENS
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

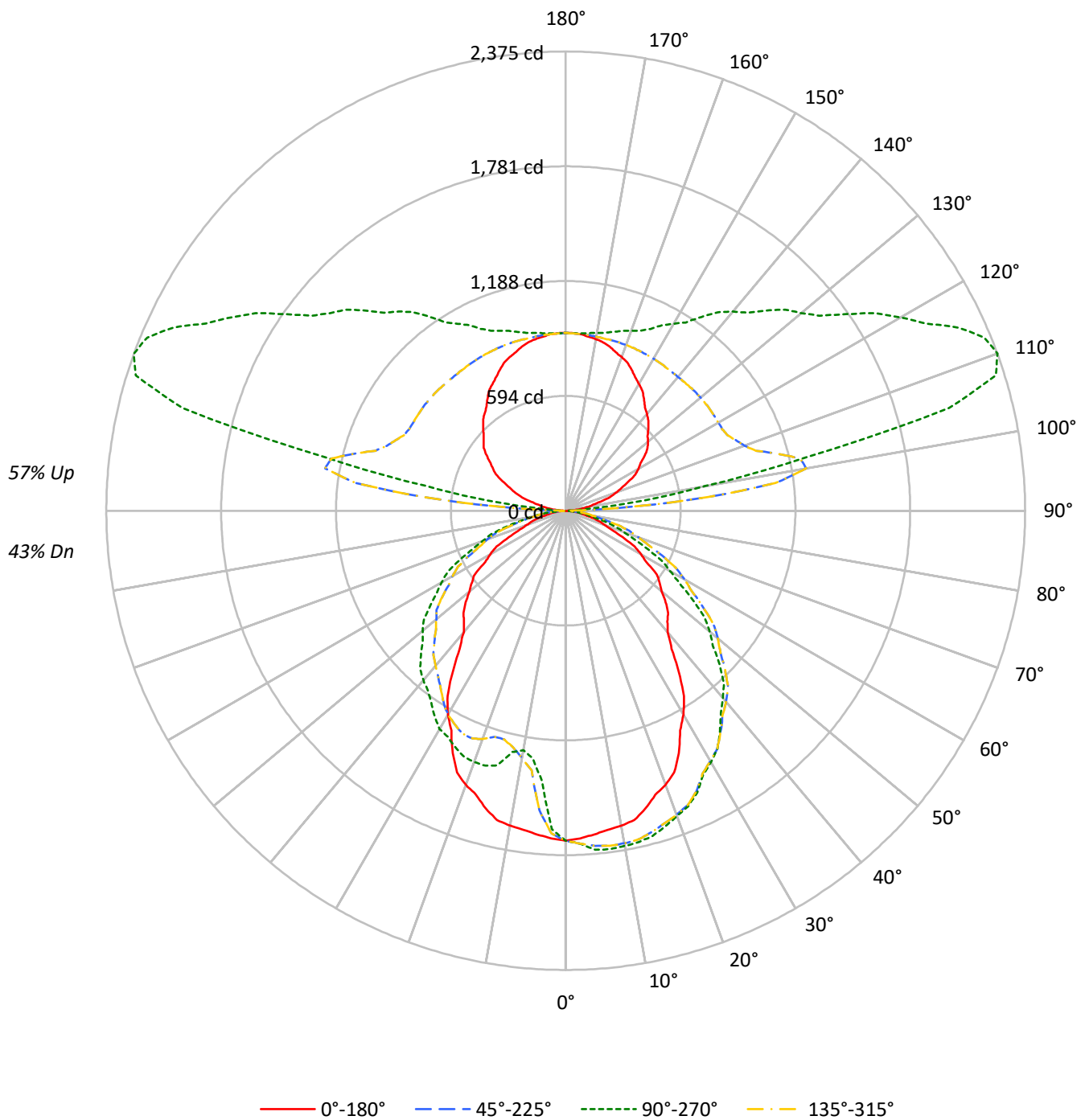
Lumens per Lamp: N/A
Luminaire Lumens: 9911.2 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.5
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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49
1	96	92	88	85	88	84	81	78	70	67	65	56	55	53	44	43	42
2	88	80	74	69	80	74	69	64	61	57	54	49	47	45	39	37	35
3	80	71	63	58	73	65	59	54	54	49	45	44	40	38	34	32	30
4	73	62	55	49	67	57	51	45	48	43	39	39	35	32	31	28	26
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	28	25	23
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	25	22	20
7	57	45	37	32	52	41	34	30	35	29	25	29	25	22	23	20	18
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	21	18	16
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14
10	46	34	27	22	42	31	25	21	27	22	18	22	18	15	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	27561	27561	27561	27561
5°	27238	28525	27238	22734
10°	27119	28855	27119	20610
15°	26653	29086	26653	22783
20°	25919	28876	25919	23759
25°	24635	28643	24635	24045
30°	22697	28001	22697	24300
35°	20083	27386	20083	23865
40°	17291	26635	17291	24125
45°	17070	25683	17070	24172
50°	16287	24430	16287	24264
55°	16203	22536	16203	24026
60°	14528	20082	14528	23928
65°	12386	17692	12386	23255
70°	9994	14993	9994	21550
75°	8665	12383	8665	19813
80°	7383	9224	7383	15993
85°	4909	4909	4909	9800

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 26590 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.6	1.5
10°-20°	429.2	4.3
20°-30°	651.8	6.6
30°-40°	765.2	7.7
40°-50°	776.4	7.8
50°-60°	680.2	6.9
60°-70°	482.5	4.9
70°-80°	248.5	2.5
80°-90°	53.1	0.5
90°-100°	351.6	3.5
100°-110°	1144.6	11.5
110°-120°	1132.3	11.4
120°-130°	925.3	9.3
130°-140°	756.3	7.6
140°-150°	589.0	5.9
150°-160°	424.6	4.3
160°-170°	259.5	2.6
170°-180°	87.6	0.9
0°-30°	1234.5	12.5
0°-40°	1999.7	20.2
0°-60°	3456.3	34.9
0°-90°	4240.5	42.8
90°-120°	2628.5	26.5
90°-150°	4899.1	49.4
90°-180°	5671.0	57.2
0°-180°	9911.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1707	1707	1707	1707	1707	
5°	1681	1760	1681	1403	1681	160
15°	1594	1740	1594	1363	1594	448
25°	1383	1608	1383	1350	1383	631
35°	1019	1389	1019	1211	1019	635
45°	748	1125	748	1059	748	572
55°	576	801	576	854	576	498
65°	324	463	324	609	324	324
75°	139	198	139	318	139	150
85°	26	26	26	53	26	33
90°	0	7	0	7	0	3
95°	48	141	48	141	48	55
105°	194	2051	194	2051	194	207
115°	360	2240	360	2240	360	356
125°	500	1772	500	1772	500	445
135°	604	1463	604	1463	604	466
145°	705	1223	705	1223	705	442
155°	805	1038	805	1038	805	371
165°	878	958	878	958	878	247
175°	916	920	916	920	916	87
180°	919	919	919	919	919	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1707.0	1707.0	1707.0	1707.0	1707.0	1707.0	1707.0	1707.0	1707.0	1707.0	1707.0
2.5°	1696.4	1722.3	1722.9	1722.9	1722.9	1722.9	1722.9	1722.3	1696.4	1696.4	1670.0
5°	1680.6	1725.8	1740.1	1747.0	1760.0	1747.0	1740.1	1725.8	1680.6	1661.1	1554.8
7.5°	1664.7	1725.5	1746.7	1758.8	1765.2	1758.8	1746.7	1725.5	1664.7	1578.0	1355.0
10°	1654.1	1725.3	1746.7	1753.5	1760.0	1753.5	1746.7	1725.3	1654.1	1479.4	1296.8
12.5°	1638.2	1714.5	1741.4	1748.2	1754.7	1748.2	1741.4	1714.5	1638.2	1391.1	1254.5
15°	1594.5	1698.1	1720.3	1733.6	1740.1	1733.6	1720.3	1698.1	1594.5	1316.4	1224.0
17.5°	1540.3	1665.8	1695.1	1707.1	1712.3	1707.1	1695.1	1665.8	1540.3	1249.2	1225.4
20°	1508.5	1644.4	1673.9	1680.6	1680.6	1680.6	1673.9	1644.4	1508.5	1217.4	1257.1
22.5°	1466.2	1617.6	1647.5	1648.9	1654.1	1648.9	1647.5	1617.6	1466.2	1180.2	1273.0
25°	1382.8	1557.5	1601.2	1594.8	1607.8	1594.8	1601.2	1557.5	1382.8	1130.5	1270.3
27.5°	1280.9	1500.9	1532.3	1539.0	1539.0	1539.0	1532.3	1500.9	1280.9	1081.7	1243.9
30°	1217.4	1463.2	1495.3	1501.9	1501.9	1501.9	1495.3	1463.2	1217.4	1049.2	1217.4
32.5°	1138.0	1430.4	1458.2	1459.6	1459.6	1459.6	1458.2	1430.4	1138.0	1016.4	1175.1
35°	1018.9	1374.7	1396.1	1395.9	1389.4	1395.9	1396.1	1374.7	1018.9	967.2	1124.8
37.5°	899.8	1303.5	1332.5	1323.1	1316.7	1323.1	1332.5	1303.5	899.8	916.6	1082.4
40°	820.4	1260.3	1290.2	1270.2	1263.7	1270.2	1290.2	1260.3	820.4	878.7	1045.4
42.5°	778.1	1212.8	1242.6	1217.3	1210.8	1217.3	1242.6	1212.8	778.1	841.5	1013.6
45°	747.6	1135.8	1164.5	1137.7	1124.8	1137.7	1164.5	1135.8	747.6	786.5	959.4
47.5°	701.3	1042.9	1083.8	1043.8	1030.8	1043.8	1083.8	1042.9	701.3	729.8	910.4
50°	648.4	984.8	1025.5	985.5	972.6	985.5	1025.5	984.8	648.4	687.2	873.4
52.5°	611.4	927.1	962.0	916.7	903.8	916.7	962.0	927.1	611.4	634.6	841.6
55°	575.6	840.9	866.7	820.0	800.6	820.0	866.7	840.9	575.6	556.2	780.7
57.5°	492.3	744.6	771.5	718.0	696.0	718.0	771.5	744.6	492.3	475.4	717.2
60°	449.9	676.3	708.0	654.3	621.9	654.3	708.0	676.3	449.9	417.6	674.9
62.5°	402.3	602.8	644.4	590.8	558.4	590.8	644.4	602.8	402.3	380.3	627.2
65°	324.2	498.9	549.2	495.5	463.1	495.5	549.2	498.9	324.2	337.1	549.2
67.5°	254.1	404.2	460.5	401.7	375.8	401.7	460.5	404.2	254.1	296.8	477.7
70°	211.7	341.1	397.0	343.5	317.6	343.5	397.0	341.1	211.7	269.9	430.1
72.5°	185.3	283.6	344.1	285.4	264.7	285.4	344.1	283.6	185.3	243.5	371.8
75°	138.9	197.2	264.7	211.4	198.5	211.4	264.7	197.2	138.9	197.2	291.1
77.5°	100.6	127.7	186.6	141.5	136.3	141.5	186.6	127.7	100.6	148.4	211.7
80°	79.4	85.9	138.9	99.2	99.2	99.2	138.9	85.9	79.4	111.7	158.8
82.5°	52.9	59.4	96.6	67.4	62.2	67.4	96.6	59.4	52.9	80.1	111.2
85°	26.5	26.5	39.7	26.5	26.5	26.5	39.7	26.5	26.5	39.4	52.9
87.5°	5.3	6.0	12.2	6.6	6.6	6.6	12.2	6.0	5.3	11.1	12.2
90°	0.0	3.3	7.9	6.8	6.8	6.8	7.9	3.3	0.0	3.3	7.9
92.5°	16.3	58.5	187.0	61.6	47.5	61.6	187.0	58.5	16.3	58.5	187.0
95°	47.5	144.8	644.4	229.7	141.3	229.7	644.4	144.8	47.5	144.8	644.4
97.5°	89.3	188.4	1093.7	666.1	406.5	666.1	1093.7	188.4	89.3	188.4	1093.7
100°	116.4	213.7	1262.8	1126.0	730.3	1126.0	1262.8	213.7	116.4	213.7	1262.8
102.5°	147.2	240.9	1242.0	1665.9	1266.6	1665.9	1242.0	240.9	147.2	240.9	1242.0
105°	194.4	280.7	1133.9	2165.7	2050.8	2165.7	1133.9	280.7	194.4	280.7	1133.9
107.5°	245.5	326.7	1031.3	2209.1	2330.9	2209.1	1031.3	326.7	245.5	326.7	1031.3
110°	282.6	356.7	982.4	2155.2	2375.2	2155.2	982.4	356.7	282.6	356.7	982.4

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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°	313.4	386.6	951.7	2058.1	2341.7	2058.1	951.7	386.6	313.4	386.6	951.7
115°	359.5	429.1	923.6	1903.5	2239.5	1903.5	923.6	429.1	359.5	429.1	923.6
117.5°	407.0	469.8	912.8	1761.9	2096.4	1761.9	912.8	469.8	407.0	469.8	912.8
120°	434.1	496.0	910.1	1674.9	1998.7	1674.9	910.1	496.0	434.1	496.0	910.1
122.5°	460.3	521.4	911.0	1599.3	1901.1	1599.3	911.0	521.4	460.3	521.4	911.0
125°	499.7	557.2	911.2	1502.9	1771.5	1502.9	911.2	557.2	499.7	557.2	911.2
127.5°	533.4	592.2	911.0	1430.7	1654.6	1430.7	911.0	592.2	533.4	592.2	911.0
130°	555.1	614.8	910.1	1389.4	1589.5	1389.4	910.1	614.8	555.1	614.8	910.1
132.5°	574.1	636.4	909.2	1351.2	1538.9	1351.2	909.2	636.4	574.1	636.4	909.2
135°	603.7	666.7	906.7	1297.1	1462.9	1297.1	906.7	666.7	603.7	666.7	906.7
137.5°	632.6	696.1	904.2	1242.2	1389.4	1242.2	904.2	696.1	632.6	696.1	904.2
140°	653.4	714.2	903.3	1204.9	1344.2	1204.9	903.3	714.2	653.4	714.2	903.3
142.5°	673.3	731.5	903.3	1169.3	1293.5	1169.3	903.3	731.5	673.3	731.5	903.3
145°	705.4	757.4	904.4	1117.1	1223.2	1117.1	904.4	757.4	705.4	757.4	904.4
147.5°	736.6	781.7	906.0	1072.7	1154.7	1072.7	906.0	781.7	736.6	781.7	906.0
150°	757.4	797.2	907.8	1046.2	1115.8	1046.2	907.8	797.2	757.4	797.2	907.8
152.5°	778.2	811.0	908.7	1026.0	1081.4	1026.0	908.7	811.0	778.2	811.0	908.7
155°	804.9	831.5	910.1	1000.2	1037.8	1000.2	910.1	831.5	804.9	831.5	910.1
157.5°	830.2	849.3	911.4	981.2	1007.5	981.2	911.4	849.3	830.2	849.3	911.4
160°	845.6	861.1	912.3	969.3	990.3	969.3	912.3	861.1	845.6	861.1	912.3
162.5°	859.2	871.1	912.3	959.3	975.0	959.3	912.3	871.1	859.2	871.1	912.3
165°	878.4	886.1	912.3	946.5	957.5	946.5	912.3	886.1	878.4	886.1	912.3
167.5°	892.0	896.8	912.6	936.9	942.6	936.9	912.6	896.8	892.0	896.8	912.6
170°	901.0	903.2	913.5	930.5	932.7	930.5	913.5	903.2	901.0	903.2	913.5
172.5°	907.4	908.7	915.3	926.8	926.3	926.8	915.3	908.7	907.4	908.7	915.3
175°	915.7	915.7	915.7	922.4	920.2	922.4	915.7	915.7	915.7	915.7	915.7
177.5°	919.1	918.2	917.3	921.7	918.2	921.7	917.3	918.2	919.1	918.2	917.3
180°	919.1	919.1	919.1	919.1	919.1	919.1	919.1	919.1	919.1	919.1	919.1

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1707.0	1707.0	1707.0	1707.0	1707.0	1707.0
2.5°	1654.0	1648.8	1654.0	1670.0	1696.4	1696.4
5°	1435.0	1402.7	1435.0	1554.8	1661.1	1680.6
7.5°	1304.5	1294.2	1304.5	1355.0	1578.0	1664.7
10°	1257.1	1257.1	1257.1	1296.8	1479.4	1654.1
12.5°	1252.4	1278.3	1252.4	1254.5	1391.1	1638.2
15°	1330.6	1363.0	1330.6	1224.0	1316.4	1594.5
17.5°	1356.9	1382.8	1356.9	1225.4	1249.2	1540.3
20°	1356.9	1382.8	1356.9	1257.1	1217.4	1508.5
22.5°	1351.6	1377.5	1351.6	1273.0	1180.2	1466.2
25°	1336.8	1349.7	1336.8	1270.3	1130.5	1382.8
27.5°	1310.2	1319.3	1310.2	1243.9	1081.7	1280.9
30°	1284.0	1303.4	1284.0	1217.4	1049.2	1217.4
32.5°	1257.2	1261.1	1257.2	1175.1	1016.4	1138.0
35°	1217.3	1210.8	1217.3	1124.8	967.2	1018.9
37.5°	1163.3	1171.1	1163.3	1082.4	916.6	899.8
40°	1131.7	1144.6	1131.7	1045.4	878.7	820.4
42.5°	1099.9	1112.9	1099.9	1013.6	841.5	778.1
45°	1052.1	1058.6	1052.1	959.4	786.5	747.6
47.5°	996.6	1003.0	996.6	910.4	729.8	701.3
50°	959.5	966.0	959.5	873.4	687.2	648.4
52.5°	917.2	923.6	917.2	841.6	634.6	611.4
55°	853.5	853.5	853.5	780.7	556.2	575.6
57.5°	780.9	788.7	780.9	717.2	475.4	492.3
60°	728.1	741.0	728.1	674.9	417.6	449.9
62.5°	680.3	688.1	680.3	627.2	380.3	402.3
65°	602.2	608.7	602.2	549.2	337.1	324.2
67.5°	514.9	520.0	514.9	477.7	296.8	254.1
70°	456.5	456.5	456.5	430.1	269.9	211.7
72.5°	398.4	403.6	398.4	371.8	243.5	185.3
75°	311.1	317.6	311.1	291.1	197.2	138.9
77.5°	223.8	230.2	223.8	211.7	148.4	100.6
80°	165.6	172.0	165.6	158.8	111.7	79.4
82.5°	117.8	119.1	117.8	111.2	80.1	52.9
85°	52.9	52.9	52.9	52.9	39.4	26.5
87.5°	11.9	11.9	11.9	12.2	11.1	5.3
90°	6.8	6.8	6.8	7.9	3.3	0.0
92.5°	61.6	47.5	61.6	187.0	58.5	16.3
95°	229.7	141.3	229.7	644.4	144.8	47.5
97.5°	666.1	406.5	666.1	1093.7	188.4	89.3
100°	1126.0	730.3	1126.0	1262.8	213.7	116.4
102.5°	1665.9	1266.6	1665.9	1242.0	240.9	147.2
105°	2165.7	2050.8	2165.7	1133.9	280.7	194.4
107.5°	2209.1	2330.9	2209.1	1031.3	326.7	245.5
110°	2155.2	2375.2	2155.2	982.4	356.7	282.6

TEST NUMBER: P1191359

CATALOG NUMBER: SQ2-FA-125U-100D-L830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	2058.1	2341.7	2058.1	951.7	386.6	313.4
115°	1903.5	2239.5	1903.5	923.6	429.1	359.5
117.5°	1761.9	2096.4	1761.9	912.8	469.8	407.0
120°	1674.9	1998.7	1674.9	910.1	496.0	434.1
122.5°	1599.3	1901.1	1599.3	911.0	521.4	460.3
125°	1502.9	1771.5	1502.9	911.2	557.2	499.7
127.5°	1430.7	1654.6	1430.7	911.0	592.2	533.4
130°	1389.4	1589.5	1389.4	910.1	614.8	555.1
132.5°	1351.2	1538.9	1351.2	909.2	636.4	574.1
135°	1297.1	1462.9	1297.1	906.7	666.7	603.7
137.5°	1242.2	1389.4	1242.2	904.2	696.1	632.6
140°	1204.9	1344.2	1204.9	903.3	714.2	653.4
142.5°	1169.3	1293.5	1169.3	903.3	731.5	673.3
145°	1117.1	1223.2	1117.1	904.4	757.4	705.4
147.5°	1072.7	1154.7	1072.7	906.0	781.7	736.6
150°	1046.2	1115.8	1046.2	907.8	797.2	757.4
152.5°	1026.0	1081.4	1026.0	908.7	811.0	778.2
155°	1000.2	1037.8	1000.2	910.1	831.5	804.9
157.5°	981.2	1007.5	981.2	911.4	849.3	830.2
160°	969.3	990.3	969.3	912.3	861.1	845.6
162.5°	959.3	975.0	959.3	912.3	871.1	859.2
165°	946.5	957.5	946.5	912.3	886.1	878.4
167.5°	936.9	942.6	936.9	912.6	896.8	892.0
170°	930.5	932.7	930.5	913.5	903.2	901.0
172.5°	926.8	926.3	926.8	915.3	908.7	907.4
175°	922.4	920.2	922.4	915.7	915.7	915.7
177.5°	921.7	918.2	921.7	917.3	918.2	919.1
180°	919.1	919.1	919.1	919.1	919.1	919.1

TEST NUMBER: P1191359

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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	17.17	17.97	18.18	18.99	20.36	18.39	19.19	19.41	20.22	21.59
	3H	18.25	18.97	19.28	20.00	21.39	19.63	20.35	20.66	21.38	22.77
	4H	18.60	19.28	19.64	20.32	21.72	20.02	20.70	21.06	21.73	23.13
	6H	18.76	19.39	19.81	20.43	21.84	20.18	20.80	21.23	21.84	23.25
	8H	18.80	19.39	19.85	20.45	21.85	20.20	20.79	21.25	21.85	23.26
	12H	18.79	19.35	19.85	20.41	21.84	20.18	20.74	21.24	21.80	23.23
4H	2H	18.09	18.77	19.14	19.80	21.20	19.00	19.68	20.05	20.71	22.11
	3H	19.45	20.02	20.51	21.08	22.49	20.45	21.01	21.50	22.07	23.49
	4H	19.89	20.41	20.95	21.47	22.90	20.91	21.43	21.97	22.48	23.92
	6H	20.12	20.56	21.19	21.64	23.07	21.13	21.57	22.20	22.65	24.08
	8H	20.17	20.59	21.24	21.66	23.10	21.17	21.59	22.24	22.66	24.10
	12H	20.17	20.55	21.26	21.63	23.08	21.16	21.53	22.25	22.62	24.07
8H	4H	20.29	20.70	21.36	21.77	23.22	21.11	21.53	22.19	22.60	24.04
	6H	20.63	20.97	21.72	22.09	23.53	21.42	21.76	22.52	22.88	24.32
	8H	20.74	21.04	21.85	22.14	23.60	21.52	21.81	22.62	22.91	24.37
	12H	20.78	21.04	21.88	22.13	23.63	21.53	21.79	22.63	22.88	24.38
12H	4H	20.29	20.66	21.38	21.75	23.20	21.08	21.45	22.17	22.54	23.99
	6H	20.70	21.00	21.80	22.10	23.56	21.44	21.74	22.54	22.84	24.30
	8H	20.84	21.11	21.95	22.20	23.70	21.55	21.81	22.66	22.91	24.41