

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: P937652

Luminaire Tested: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937652  
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

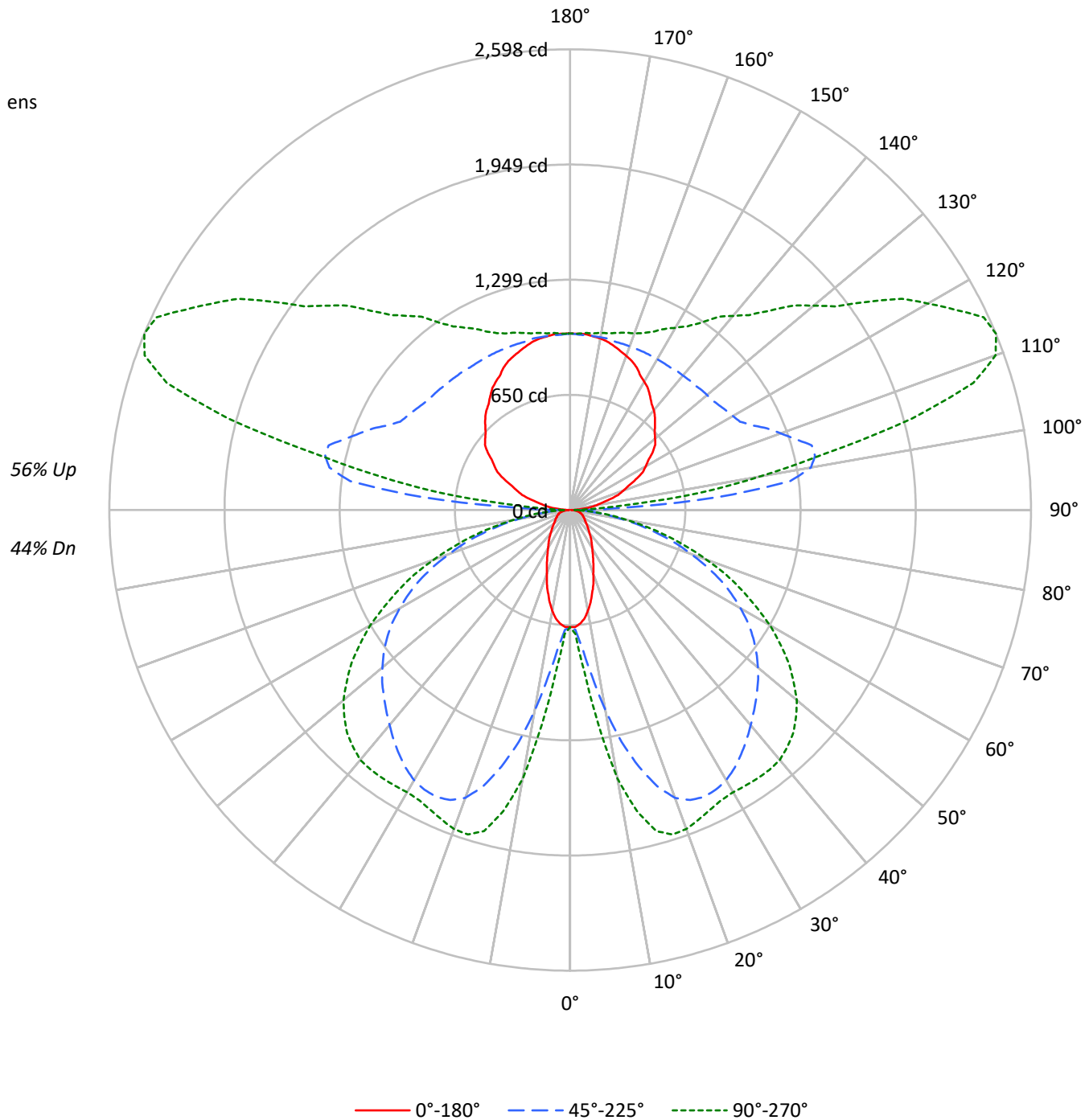
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11561.6 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 116  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P937652  
CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

### Luminous Intensity Polar Plot





TEST NUMBER: P937652

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	0
RCR																					
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9			9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3062	3062	3062
5°	2991	3539	4116
10°	2713	5159	6823
15°	2306	6740	8239
20°	1878	7810	8397
25°	1566	8173	8226
30°	1321	8225	8211
35°	1168	8088	8423
40°	1018	7910	8642
45°	922	7781	8676
50°	845	7664	8532
55°	809	7492	8155
60°	828	7163	7558
65°	862	6663	6737
70°	918	5811	5691
75°	1017	4738	4441
80°	1113	3286	2993
85°	987	1744	1532

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8676 cd/sqm



TEST NUMBER: P937652

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.4	0.7
10°-20°	378.4	3.3
20°-30°	661.8	5.7
30°-40°	851.9	7.4
40°-50°	951.6	8.2
50°-60°	911.4	7.9
60°-70°	722.3	6.2
70°-80°	424.7	3.7
80°-90°	121.8	1.1
90°-100°	485.2	4.2
100°-110°	1275.5	11.0
110°-120°	1322.6	11.4
120°-130°	1060.9	9.2
130°-140°	832.4	7.2
140°-150°	638.9	5.5
150°-160°	460.1	4.0
160°-170°	281.5	2.4
170°-180°	95.1	0.8
0°-30°	1125.5	9.7
0°-40°	1977.5	17.1
0°-60°	3840.5	33.2
0°-90°	5109.3	44.2
90°-120°	3083.3	26.7
90°-150°	5615.6	48.6
90°-180°	6452.0	55.8
0°-180°	11561.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	643	690	777	879	910	59
15°	482	889	1498	1816	1874	134
25°	308	1008	1785	1863	1865	142
35°	208	963	1681	1776	1846	130
45°	142	768	1486	1702	1778	110
55°	102	488	1260	1464	1505	93
65°	81	259	936	1053	1067	80
75°	59	159	514	564	567	62
85°	21	49	127	140	142	23
90°	7	19	51	25	25	7
95°	64	251	836	431	293	71
105°	230	348	1410	2141	1997	244
115°	408	496	1130	2253	2572	403
125°	568	637	1027	1736	2048	504
135°	677	745	995	1402	1589	524
145°	785	835	983	1196	1289	492
155°	887	912	983	1079	1110	408
165°	957	970	983	1021	1034	270
175°	995	995	989	1002	1002	94
180°	995	995	995	995	995	



TEST NUMBER: P937652

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
2.5°	660.0	660.0	664.2	666.3	670.6	672.7	676.9	681.2	694.0	696.0	700.3
5°	643.0	651.5	679.1	689.7	719.4	759.7	776.7	804.3	861.5	878.6	889.2
7.5°	617.5	636.6	704.6	721.5	795.8	901.8	946.4	1005.8	1097.1	1141.7	1177.8
10°	577.2	617.5	738.5	778.8	899.8	1061.0	1143.8	1226.6	1364.5	1426.0	1449.3
12.5°	532.6	598.4	774.6	829.7	1003.8	1239.3	1339.0	1430.3	1587.3	1670.1	1682.8
15°	481.7	570.9	808.5	889.2	1114.1	1387.8	1498.2	1610.7	1757.0	1816.5	1831.3
17.5°	437.2	549.7	840.3	925.2	1199.0	1521.5	1634.0	1727.3	1846.2	1886.5	1897.2
20°	382.0	515.7	861.5	971.9	1288.1	1619.2	1727.3	1799.5	1880.1	1905.6	1909.9
22.5°	341.7	479.6	874.3	988.9	1347.5	1678.6	1769.8	1827.1	1882.3	1890.7	1892.9
25°	307.7	439.2	872.1	1008.0	1398.4	1714.6	1784.7	1827.1	1858.9	1863.2	1863.2
27.5°	275.8	394.7	863.7	1012.3	1436.6	1723.2	1778.3	1808.0	1822.9	1831.3	1831.3
30°	248.3	352.3	842.4	1003.8	1453.6	1714.6	1759.2	1774.1	1788.9	1801.6	1808.0
32.5°	227.1	312.0	810.6	986.7	1455.8	1693.4	1725.2	1733.8	1755.0	1784.7	1795.3
35°	208.0	271.7	774.6	963.4	1443.0	1659.5	1680.7	1689.2	1731.6	1776.2	1791.0
37.5°	188.9	241.9	727.8	923.1	1423.9	1619.2	1634.0	1648.9	1714.6	1767.6	1784.7
40°	169.8	216.5	672.7	878.6	1394.2	1570.3	1583.0	1606.4	1693.4	1755.0	1771.9
42.5°	154.9	195.2	613.3	831.8	1356.0	1515.2	1534.3	1568.2	1667.9	1733.8	1752.9
45°	142.2	174.0	549.7	768.1	1307.2	1457.8	1485.5	1532.1	1638.2	1701.9	1718.9
47.5°	129.4	159.2	483.8	702.4	1254.1	1400.6	1436.6	1489.7	1597.9	1659.5	1674.3
50°	118.8	144.3	418.0	632.4	1196.9	1339.0	1381.5	1436.6	1547.0	1604.3	1623.3
52.5°	110.3	131.5	356.5	562.3	1131.0	1275.3	1324.1	1381.5	1485.5	1540.6	1553.3
55°	101.8	120.9	303.5	488.1	1063.2	1207.5	1260.5	1315.7	1417.5	1464.2	1472.7
57.5°	97.6	112.5	258.9	418.0	991.0	1131.0	1190.4	1241.4	1336.9	1373.0	1381.5
60°	91.2	106.1	224.9	358.6	912.5	1058.9	1109.8	1160.7	1241.4	1271.1	1277.5
62.5°	84.9	101.8	199.5	301.4	831.8	974.0	1024.9	1071.7	1139.5	1160.7	1169.2
65°	80.6	97.6	180.4	258.9	749.1	884.9	935.8	976.1	1031.3	1052.6	1056.8
67.5°	76.4	93.4	165.5	222.8	666.3	795.8	834.0	872.1	914.6	935.8	938.0
70°	70.0	89.1	152.8	197.4	581.5	694.0	725.8	766.1	800.0	810.6	817.0
72.5°	65.8	82.8	144.3	178.3	494.4	596.3	626.0	649.4	679.1	689.7	689.7
75°	59.4	74.3	135.8	159.2	405.4	488.1	513.5	536.9	560.3	564.5	558.1
77.5°	53.1	65.8	116.7	133.7	316.2	386.2	407.4	420.1	439.2	443.5	445.7
80°	44.6	57.3	91.2	104.0	229.2	284.3	299.2	309.8	326.8	326.8	331.1
82.5°	34.0	44.6	65.8	74.3	154.9	195.2	208.0	214.3	224.9	224.9	224.9
85°	21.2	27.6	42.5	48.8	93.4	118.8	127.4	129.4	138.0	140.0	140.0
87.5°	10.6	14.9	27.6	29.7	48.8	61.5	61.5	65.8	65.8	63.7	61.5
90°	6.7	12.0	17.3	18.7	29.4	43.6	50.7	45.1	33.8	25.4	25.4
92.5°	26.7	72.2	117.6	129.0	181.2	251.0	285.9	250.5	180.0	127.0	121.9
95°	64.2	147.3	230.4	251.2	446.0	705.8	835.7	745.7	565.8	430.9	415.6
97.5°	110.9	184.2	257.6	275.9	600.8	1033.9	1250.5	1193.7	1080.0	994.7	965.6
100°	146.9	213.4	280.0	296.6	657.1	1137.8	1378.1	1382.3	1390.6	1396.8	1362.1
102.5°	177.7	239.7	301.8	317.3	682.9	1170.4	1414.2	1486.6	1631.5	1740.2	1710.5
105°	229.8	282.3	334.9	348.0	702.1	1174.1	1410.1	1572.5	1897.3	2141.0	2125.0
107.5°	283.2	332.2	381.2	393.5	705.7	1121.9	1330.0	1556.5	2009.6	2349.3	2353.2
110°	319.3	363.5	407.8	418.8	700.3	1075.5	1263.2	1516.5	2022.9	2402.8	2419.4



TEST NUMBER: P937652

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	354.7	396.8	439.1	449.6	700.5	1035.1	1202.4	1461.6	1980.0	2368.8	2394.3
115°	408.2	447.0	486.0	495.7	707.0	988.7	1129.6	1379.3	1878.7	2253.2	2288.6
117.5°	460.9	496.3	531.6	540.4	720.1	959.7	1079.5	1304.8	1755.5	2093.5	2132.8
120°	491.7	524.9	558.2	566.4	730.8	949.9	1059.5	1265.4	1677.1	1986.0	2024.1
122.5°	521.7	555.3	588.8	597.2	746.1	944.7	1044.1	1229.5	1600.3	1878.5	1916.1
125°	567.8	598.4	629.0	636.6	766.9	940.6	1027.4	1184.9	1499.9	1736.2	1770.9
127.5°	605.2	636.1	667.0	674.7	787.6	938.1	1013.4	1148.6	1419.1	1621.9	1651.1
130°	625.2	658.5	691.7	700.1	802.7	939.6	1008.0	1128.4	1369.2	1549.8	1576.8
132.5°	645.9	679.2	712.4	720.8	815.0	940.6	1003.3	1111.1	1326.6	1488.3	1512.5
135°	676.7	707.0	737.3	744.9	828.4	939.7	995.3	1085.6	1266.1	1401.5	1422.4
137.5°	708.1	738.0	768.1	775.5	848.4	945.5	994.0	1070.2	1222.9	1337.3	1354.4
140°	734.1	761.7	789.3	796.3	860.6	946.4	989.3	1055.2	1187.1	1285.9	1301.9
142.5°	754.2	779.7	805.2	811.6	870.9	949.8	989.3	1047.2	1163.0	1249.9	1263.6
145°	784.9	807.2	829.5	835.0	884.3	949.9	982.6	1030.0	1124.7	1195.7	1206.1
147.5°	815.6	837.3	859.0	864.4	903.9	956.4	982.6	1019.9	1094.4	1150.3	1158.9
150°	835.7	855.3	874.9	879.8	914.1	959.7	982.6	1014.1	1077.1	1124.3	1131.3
152.5°	856.4	871.3	886.1	889.8	920.7	962.0	982.6	1009.5	1063.3	1103.6	1108.9
155°	887.1	898.1	909.1	911.8	935.4	966.9	982.6	1004.0	1046.8	1078.8	1082.3
157.5°	909.8	920.5	931.2	933.9	950.1	971.8	982.6	999.3	1032.5	1057.5	1059.9
160°	925.2	933.6	941.8	943.9	956.9	974.0	982.6	996.9	1025.4	1046.8	1048.2
162.5°	940.6	946.8	953.1	954.6	963.9	976.4	982.6	994.7	1018.7	1036.8	1038.1
165°	957.3	962.9	968.5	969.9	974.2	979.8	982.6	991.2	1008.5	1021.4	1022.9
167.5°	972.6	975.2	978.0	978.6	982.1	986.9	989.3	994.9	1006.2	1014.7	1015.2
170°	982.6	985.3	988.0	988.7	988.9	989.1	989.3	994.9	1006.2	1014.7	1014.7
172.5°	988.0	988.6	989.1	989.3	989.3	989.3	989.3	993.8	1002.7	1009.4	1008.9
175°	995.3	995.3	995.3	995.3	993.3	990.7	989.3	992.1	997.7	1002.0	1002.0
177.5°	995.3	995.3	995.3	995.3	993.8	991.7	990.7	992.9	997.3	1000.7	1000.1
180°	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3	995.3



TEST NUMBER: P937652

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	660.0	660.0
2.5°	704.6	700.3
5°	906.1	910.4
7.5°	1220.2	1218.1
10°	1517.3	1536.4
12.5°	1733.8	1738.0
15°	1865.3	1873.8
17.5°	1916.2	1918.4
20°	1918.4	1914.1
22.5°	1895.0	1890.7
25°	1867.5	1865.3
27.5°	1841.9	1844.1
30°	1831.3	1837.7
32.5°	1831.3	1841.9
35°	1835.6	1846.2
37.5°	1833.5	1846.2
40°	1825.0	1839.8
42.5°	1801.6	1812.2
45°	1765.6	1778.3
47.5°	1718.9	1727.3
50°	1659.5	1667.9
52.5°	1585.2	1587.3
55°	1496.1	1504.6
57.5°	1400.6	1402.7
60°	1294.4	1300.9
62.5°	1182.0	1182.0
65°	1063.2	1067.4
67.5°	940.1	950.7
70°	814.9	817.0
72.5°	691.8	691.8
75°	564.5	566.6
77.5°	443.5	443.5
80°	328.9	331.1
82.5°	227.1	231.3
85°	142.2	142.2
87.5°	65.8	59.4
90°	25.4	25.4
92.5°	101.7	81.5
95°	354.4	293.3
97.5°	849.2	732.8
100°	1223.5	1084.9
102.5°	1591.7	1472.9
105°	2061.1	1997.3
107.5°	2368.7	2384.1
110°	2485.9	2552.4





TEST NUMBER: P937652

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2496.4	2598.5
115°	2430.2	2571.8
117.5°	2289.8	2446.9
120°	2176.8	2329.3
122.5°	2066.6	2217.1
125°	1909.5	2048.1
127.5°	1768.1	1885.1
130°	1684.9	1792.9
132.5°	1609.3	1706.1
135°	1505.8	1589.2
137.5°	1422.7	1491.0
140°	1365.7	1429.5
142.5°	1318.5	1373.5
145°	1247.7	1289.2
147.5°	1193.3	1227.8
150°	1159.1	1187.1
152.5°	1129.9	1150.9
155°	1096.3	1110.2
157.5°	1069.7	1079.5
160°	1053.9	1059.5
162.5°	1043.4	1048.8
165°	1028.5	1034.1
167.5°	1017.6	1020.1
170°	1014.7	1014.7
172.5°	1006.8	1004.7
175°	1002.0	1002.0
177.5°	997.7	995.3
180°	995.3	995.3



TEST NUMBER: P937652  
 CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-8

**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	4.34	5.18	5.34	6.20	7.55	17.52	18.36	18.52	19.38	20.72
	3H	5.04	5.80	6.05	6.82	8.19	19.36	20.11	20.36	21.14	22.51
	4H	5.34	6.06	6.36	7.09	8.46	20.00	20.72	21.02	21.75	23.12
	6H	5.59	6.25	6.62	7.28	8.67	20.43	21.09	21.46	22.12	23.51
	8H	5.66	6.29	6.70	7.34	8.72	20.55	21.18	21.59	22.23	23.61
	12H	5.68	6.28	6.72	7.32	8.73	20.62	21.22	21.66	22.26	23.67
4H	2H	11.55	12.27	12.58	13.30	14.67	17.79	18.51	18.82	19.53	20.91
	3H	13.12	13.72	14.15	14.77	16.16	19.83	20.44	20.87	21.49	22.88
	4H	13.21	13.76	14.26	14.81	16.22	20.60	21.15	21.64	22.20	23.61
	6H	13.22	13.70	14.28	14.77	16.17	21.14	21.61	22.19	22.68	24.09
	8H	13.20	13.64	14.25	14.70	16.13	21.30	21.74	22.35	22.81	24.23
	12H	13.15	13.56	14.23	14.63	16.06	21.39	21.79	22.47	22.87	24.30
8H	4H	14.66	15.10	15.71	16.16	17.59	20.66	21.10	21.71	22.17	23.59
	6H	14.90	15.26	15.97	16.37	17.79	21.29	21.66	22.37	22.76	24.18
	8H	14.91	15.24	16.00	16.32	17.77	21.51	21.83	22.59	22.92	24.36
	12H	14.88	15.17	15.97	16.25	17.73	21.65	21.94	22.74	23.02	24.50
12H	4H	14.80	15.20	15.87	16.28	17.71	20.61	21.01	21.68	22.09	23.52
	6H	15.16	15.48	16.24	16.57	18.01	21.27	21.59	22.36	22.68	24.12
	8H	15.22	15.51	16.31	16.59	18.07	21.50	21.78	22.59	22.87	24.35