

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: P938311

Luminaire Tested: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938311
REPORT IS A COMBINATION OF REPORTS P933638 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

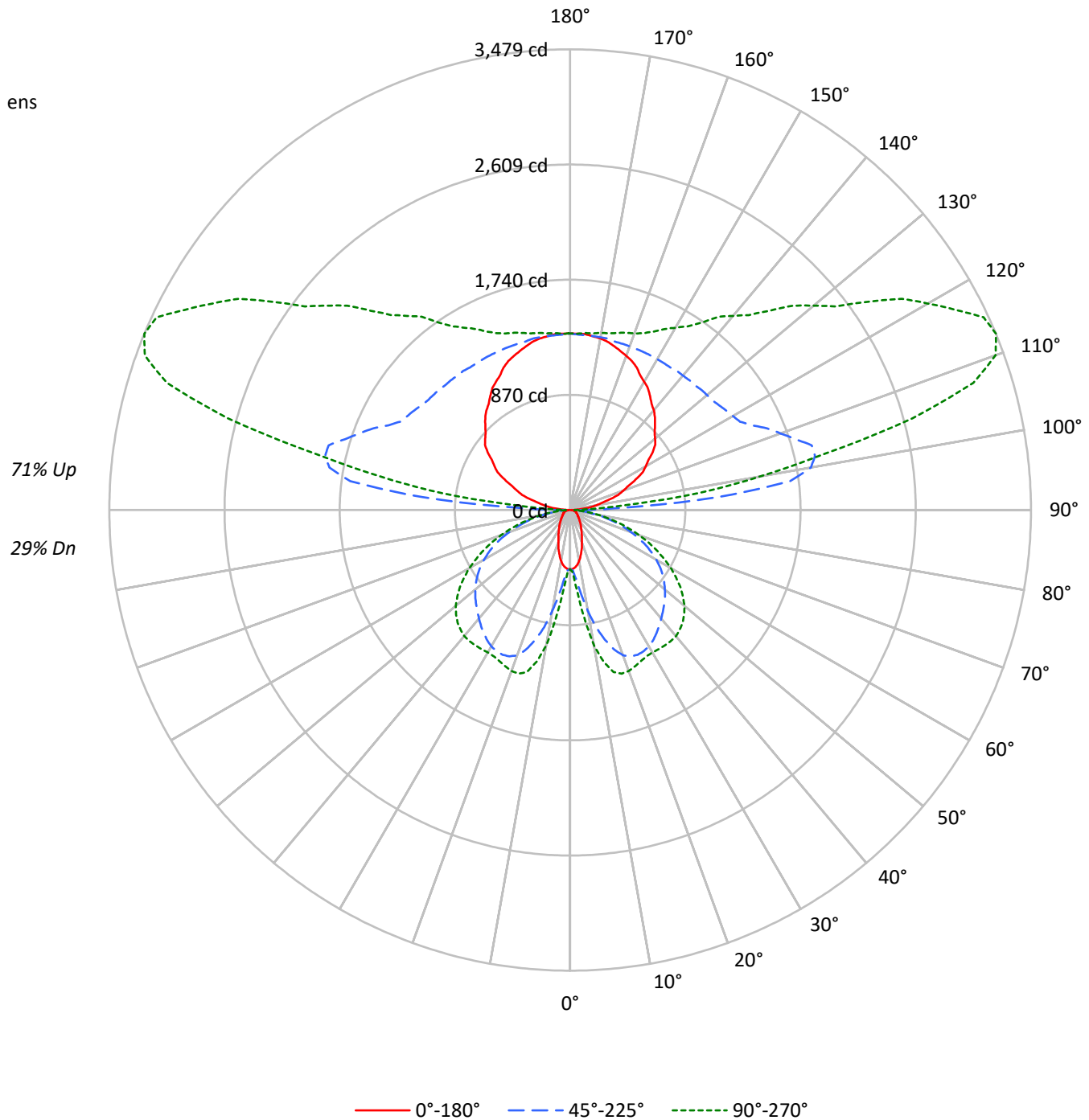
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12094.3 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 95.4
Input Voltage (V): NR
Input Current (A_{in}): 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: P938311
CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

Luminous Intensity Polar Plot





TEST NUMBER: P938311

CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29			
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23			
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19			
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13			
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6			
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2759	2759	2759
5°	2694	3188	3708
10°	2443	4646	6148
15°	2075	6068	7424
20°	1689	7031	7566
25°	1408	7356	7413
30°	1187	7400	7398
35°	1049	7275	7590
40°	913	7113	7788
45°	827	6994	7818
50°	758	6886	7689
55°	725	6730	7347
60°	742	6432	6809
65°	770	5979	6070
70°	818	5211	5128
75°	905	4245	4002
80°	980	2941	2696
85°	853	1557	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7818 cd/sqm



TEST NUMBER: P938311

CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.7	0.5
10°-20°	255.7	2.1
20°-30°	447.2	3.7
30°-40°	575.7	4.8
40°-50°	643.1	5.3
50°-60°	615.9	5.1
60°-70°	488.1	4.0
70°-80°	287.0	2.4
80°-90°	84.8	0.7
90°-100°	649.6	5.4
100°-110°	1707.8	14.1
110°-120°	1770.8	14.6
120°-130°	1420.4	11.7
130°-140°	1114.5	9.2
140°-150°	855.5	7.1
150°-160°	616.1	5.1
160°-170°	376.9	3.1
170°-180°	127.4	1.1
0°-30°	760.6	6.3
0°-40°	1336.4	11.0
0°-60°	2595.3	21.5
0°-90°	3455.2	28.6
90°-120°	4128.3	34.1
90°-150°	7518.7	62.2
90°-180°	8639.0	71.4
0°-180°	12094.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	434	466	525	594	615	40
15°	326	601	1012	1228	1266	91
25°	208	681	1206	1259	1261	96
35°	140	651	1136	1200	1248	88
45°	96	519	1004	1150	1202	74
55°	69	330	852	990	1017	63
65°	54	175	632	711	721	54
75°	40	108	347	381	383	42
85°	14	33	86	95	96	15
90°	9	25	68	34	34	8
95°	86	336	1119	577	393	95
105°	308	466	1888	2867	2674	326
115°	546	664	1512	3017	3443	540
125°	760	852	1376	2324	2742	675
135°	906	997	1333	1876	2128	701
145°	1051	1118	1316	1601	1726	658
155°	1188	1221	1316	1444	1486	546
165°	1282	1299	1316	1368	1384	362
175°	1333	1333	1325	1342	1342	127
180°	1333	1333	1333	1333	1333	



TEST NUMBER: P938311
 CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0
2.5°	446.0	446.0	448.8	450.3	453.1	454.6	457.4	460.3	468.9	470.4	473.2
5°	434.5	440.2	458.9	466.0	486.1	513.4	524.8	543.5	582.2	593.7	600.8
7.5°	417.3	430.2	476.1	487.6	537.8	609.4	639.6	679.7	741.4	771.5	795.9
10°	390.0	417.3	499.0	526.3	608.0	717.0	772.9	828.9	922.1	963.6	979.4
12.5°	359.9	404.4	523.4	560.7	678.3	837.5	904.9	966.5	1072.6	1128.7	1137.3
15°	325.5	385.7	546.4	600.8	752.8	937.8	1012.4	1088.5	1187.4	1227.6	1237.6
17.5°	295.4	371.4	567.9	625.2	810.2	1028.2	1104.3	1167.4	1247.7	1274.9	1282.1
20°	258.1	348.5	582.2	656.8	870.4	1094.2	1167.4	1216.1	1270.6	1287.8	1290.7
22.5°	230.9	324.1	590.8	668.2	910.6	1134.4	1196.1	1234.8	1272.1	1277.8	1279.2
25°	207.9	296.8	589.4	681.2	945.0	1158.8	1206.1	1234.8	1256.3	1259.1	1259.1
27.5°	186.4	266.7	583.6	684.0	970.8	1164.5	1201.8	1221.9	1231.9	1237.6	1237.6
30°	167.8	238.0	569.3	678.3	982.3	1158.8	1188.9	1198.9	1209.0	1217.6	1221.9
32.5°	153.4	210.8	547.8	666.8	983.7	1144.4	1165.9	1171.7	1186.0	1206.1	1213.3
35°	140.5	183.6	523.4	651.0	975.1	1121.5	1135.8	1141.6	1170.2	1200.4	1210.4
37.5°	127.6	163.5	491.9	623.8	962.2	1094.2	1104.3	1114.3	1158.8	1194.6	1206.1
40°	114.7	146.3	454.6	593.7	942.1	1061.2	1069.8	1085.5	1144.4	1186.0	1197.5
42.5°	104.7	131.9	414.4	562.1	916.3	1023.9	1036.8	1059.7	1127.2	1171.7	1184.6
45°	96.1	117.6	371.4	519.1	883.3	985.2	1003.8	1035.3	1107.1	1150.2	1161.6
47.5°	87.5	107.6	327.0	474.7	847.5	946.4	970.8	1006.7	1079.8	1121.5	1131.5
50°	80.3	97.5	282.5	427.3	808.8	904.9	933.5	970.8	1045.4	1084.1	1097.1
52.5°	74.6	88.9	240.9	380.0	764.3	861.8	894.8	933.5	1003.8	1041.1	1049.7
55°	68.8	81.7	205.1	329.8	718.4	815.9	851.8	889.1	957.9	989.5	995.2
57.5°	66.0	76.0	174.9	282.5	669.7	764.3	804.5	838.9	903.4	927.8	933.5
60°	61.7	71.7	152.0	242.3	616.6	715.6	750.0	784.4	838.9	859.0	863.3
62.5°	57.4	68.8	134.8	203.6	562.1	658.2	692.6	724.2	770.1	784.4	790.1
65°	54.5	66.0	121.9	174.9	506.2	598.0	632.4	659.6	696.9	711.3	714.1
67.5°	51.6	63.1	111.9	150.6	450.3	537.8	563.6	589.4	618.1	632.4	633.8
70°	47.3	60.2	103.2	133.4	392.9	468.9	490.4	517.7	540.6	547.8	552.1
72.5°	44.5	55.9	97.5	120.5	334.1	403.0	423.0	438.8	458.9	466.0	466.0
75°	40.2	50.2	91.8	107.6	273.9	329.8	347.0	362.8	378.6	381.4	377.1
77.5°	35.8	44.5	78.9	90.3	213.7	261.0	275.3	283.9	296.8	299.7	301.1
80°	30.1	38.7	61.7	70.3	154.9	192.2	202.2	209.4	220.8	220.8	223.7
82.5°	22.9	30.1	44.5	50.2	104.7	131.9	140.5	144.8	152.0	152.0	152.0
85°	14.3	18.6	28.7	33.0	63.1	80.3	86.0	87.5	93.2	94.6	94.6
87.5°	7.2	10.0	18.6	20.1	33.0	41.6	41.6	44.5	44.5	43.0	41.6
90°	9.0	16.2	23.2	25.0	39.4	58.4	68.0	60.4	45.3	34.0	34.0
92.5°	35.8	96.6	157.5	172.7	242.7	336.1	382.8	335.5	240.9	170.0	163.2
95°	85.8	197.1	308.5	336.3	597.2	945.0	1118.9	998.4	757.5	576.9	556.4
97.5°	148.5	246.6	344.8	369.4	804.4	1384.4	1674.3	1598.2	1446.0	1331.8	1292.8
100°	196.7	285.8	374.8	397.1	879.8	1523.4	1845.2	1850.7	1861.9	1870.2	1823.9
102.5°	237.9	321.0	404.1	424.8	914.4	1567.1	1893.5	1990.4	2184.4	2329.9	2290.1
105°	307.6	378.0	448.4	466.0	940.0	1572.0	1888.1	2105.5	2540.4	2866.6	2845.2
107.5°	379.2	444.8	510.4	526.8	944.7	1502.1	1780.7	2084.1	2690.7	3145.6	3150.8
110°	427.5	486.8	546.0	560.8	937.6	1440.0	1691.3	2030.4	2708.5	3217.1	3239.4



TEST NUMBER: P938311

CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	474.9	531.3	587.7	601.9	937.9	1385.9	1609.9	1956.9	2651.0	3171.5	3205.8
115°	546.4	598.6	650.7	663.7	946.5	1323.8	1512.4	1846.7	2515.3	3016.8	3064.2
117.5°	617.1	664.4	711.7	723.6	964.2	1285.0	1445.4	1747.1	2350.4	2803.0	2855.6
120°	658.3	702.9	747.4	758.5	978.5	1271.9	1418.5	1694.2	2245.5	2659.0	2710.1
122.5°	698.5	743.5	788.4	799.6	999.0	1265.0	1398.0	1646.2	2142.7	2515.0	2565.4
125°	760.2	801.1	842.1	852.4	1026.7	1259.3	1375.6	1586.5	2008.2	2324.5	2370.9
127.5°	810.3	851.6	893.0	903.3	1054.5	1256.0	1356.8	1537.8	1900.0	2171.6	2210.8
130°	837.2	881.7	926.3	937.4	1074.8	1258.1	1349.7	1510.9	1833.2	2075.0	2111.1
132.5°	864.9	909.4	954.0	965.1	1091.2	1259.3	1343.4	1487.6	1776.2	1992.7	2025.1
135°	906.0	946.5	987.2	997.3	1109.1	1258.1	1332.7	1453.5	1695.2	1876.4	1904.4
137.5°	948.1	988.2	1028.4	1038.4	1135.9	1265.8	1330.8	1433.0	1637.3	1790.6	1813.4
140°	983.0	1020.0	1056.9	1066.1	1152.3	1267.2	1324.6	1412.9	1589.4	1721.8	1743.1
142.5°	1009.7	1044.0	1078.2	1086.7	1166.0	1271.8	1324.6	1402.2	1557.1	1673.4	1691.7
145°	1050.9	1080.8	1110.6	1118.0	1183.9	1271.8	1315.6	1379.0	1505.9	1601.0	1614.9
147.5°	1092.0	1121.1	1150.1	1157.3	1210.1	1280.5	1315.6	1365.6	1465.3	1540.1	1551.7
150°	1118.9	1145.1	1171.3	1177.9	1223.8	1285.1	1315.6	1357.8	1442.0	1505.2	1514.6
152.5°	1146.6	1166.5	1186.4	1191.4	1232.8	1288.0	1315.6	1351.6	1423.6	1477.5	1484.6
155°	1187.7	1202.5	1217.2	1220.8	1252.5	1294.6	1315.6	1344.2	1401.5	1444.4	1449.1
157.5°	1218.1	1232.5	1246.8	1250.4	1272.1	1301.1	1315.6	1337.9	1382.5	1415.8	1419.1
160°	1238.8	1249.9	1261.0	1263.7	1281.0	1304.1	1315.6	1334.8	1372.9	1401.5	1403.4
162.5°	1259.3	1267.7	1276.0	1278.1	1290.6	1307.3	1315.6	1331.7	1363.9	1388.1	1389.9
165°	1281.7	1289.3	1296.7	1298.6	1304.3	1311.8	1315.6	1327.2	1350.3	1367.6	1369.5
167.5°	1302.3	1305.8	1309.4	1310.3	1315.1	1321.5	1324.6	1332.2	1347.3	1358.6	1359.3
170°	1315.6	1319.2	1322.8	1323.7	1324.0	1324.4	1324.6	1332.2	1347.3	1358.6	1358.6
172.5°	1322.8	1323.6	1324.4	1324.6	1324.6	1324.6	1324.6	1330.6	1342.5	1351.4	1350.7
175°	1332.7	1332.7	1332.7	1332.7	1330.0	1326.4	1324.6	1328.4	1335.9	1341.6	1341.6
177.5°	1332.7	1332.7	1332.7	1332.7	1330.6	1327.8	1326.4	1329.3	1335.3	1339.8	1339.1
180°	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7



TEST NUMBER: P938311

CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	446.0	446.0
2.5°	476.1	473.2
5°	612.3	615.2
7.5°	824.6	823.1
10°	1025.3	1038.2
12.5°	1171.7	1174.5
15°	1260.6	1266.3
17.5°	1295.0	1296.4
20°	1296.4	1293.6
22.5°	1280.7	1277.8
25°	1262.0	1260.6
27.5°	1244.8	1246.2
30°	1237.6	1241.9
32.5°	1237.6	1244.8
35°	1240.5	1247.7
37.5°	1239.1	1247.7
40°	1233.3	1243.4
42.5°	1217.6	1224.7
45°	1193.2	1201.8
47.5°	1161.6	1167.4
50°	1121.5	1127.2
52.5°	1071.2	1072.6
55°	1011.0	1016.7
57.5°	946.4	947.9
60°	874.7	879.0
62.5°	798.7	798.7
65°	718.4	721.3
67.5°	635.3	642.4
70°	550.7	552.1
72.5°	467.5	467.5
75°	381.4	382.9
77.5°	299.7	299.7
80°	222.3	223.7
82.5°	153.4	156.3
85°	96.1	96.1
87.5°	44.5	40.2
90°	34.0	34.0
92.5°	136.1	109.1
95°	474.5	392.6
97.5°	1137.0	981.1
100°	1638.2	1452.5
102.5°	2131.1	1972.1
105°	2759.7	2674.2
107.5°	3171.4	3192.1
110°	3328.4	3417.5



TEST NUMBER: P938311

CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3342.5	3479.2
115°	3253.7	3443.4
117.5°	3065.9	3276.2
120°	2914.5	3118.8
122.5°	2767.0	2968.5
125°	2556.5	2742.2
127.5°	2367.3	2524.0
130°	2255.9	2400.5
132.5°	2154.6	2284.3
135°	2016.1	2127.8
137.5°	1904.9	1996.3
140°	1828.5	1914.0
142.5°	1765.3	1838.9
145°	1670.5	1726.2
147.5°	1597.8	1643.9
150°	1552.0	1589.4
152.5°	1512.8	1541.1
155°	1467.7	1486.5
157.5°	1432.3	1445.4
160°	1411.0	1418.5
162.5°	1397.0	1404.2
165°	1376.9	1384.5
167.5°	1362.6	1365.7
170°	1358.6	1358.6
172.5°	1348.0	1345.2
175°	1341.6	1341.6
177.5°	1335.8	1332.7
180°	1332.7	1332.7



TEST NUMBER: P938311

CATALOG NUMBER: SQ4-FB-150U-075D-830-1D-UNV-STD-W-6

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	2.14	2.85	3.25	3.97	5.51	15.30	16.02	16.42	17.13	18.68
	3H	2.83	3.47	3.95	4.59	6.16	17.13	17.77	18.25	18.89	20.45
	4H	3.12	3.73	4.26	4.86	6.42	17.76	18.37	18.89	19.49	21.06
	6H	3.36	3.93	4.51	5.05	6.63	18.18	18.74	19.32	19.87	21.44
	8H	3.43	3.96	4.57	5.10	6.68	18.29	18.83	19.44	19.97	21.54
	12H	3.44	3.95	4.59	5.08	6.68	18.35	18.86	19.50	20.00	21.59
4H	2H	9.33	9.94	10.47	11.06	12.63	15.56	16.17	16.70	17.29	18.86
	3H	10.88	11.39	12.03	12.54	14.12	17.59	18.10	18.73	19.24	20.82
	4H	10.97	11.44	12.12	12.58	14.17	18.34	18.81	19.49	19.95	21.55
	6H	10.97	11.37	12.13	12.53	14.12	18.87	19.27	20.03	20.43	22.02
	8H	10.94	11.32	12.10	12.47	14.08	19.02	19.40	20.18	20.55	22.16
	12H	10.89	11.23	12.07	12.40	14.01	19.11	19.45	20.28	20.61	22.22
8H	4H	12.40	12.77	13.55	13.93	15.53	18.39	18.77	19.55	19.92	21.53
	6H	12.63	12.94	13.81	14.14	15.74	19.01	19.32	20.19	20.51	22.12
	8H	12.65	12.92	13.83	14.09	15.72	19.22	19.50	20.41	20.67	22.29
	12H	12.61	12.85	13.80	14.02	15.67	19.36	19.60	20.54	20.77	22.42
12H	4H	12.53	12.87	13.71	14.04	15.65	18.34	18.68	19.51	19.84	21.45
	6H	12.89	13.16	14.07	14.33	15.96	18.99	19.26	20.17	20.43	22.06
	8H	12.95	13.19	14.14	14.36	16.02	19.21	19.45	20.40	20.62	22.27