

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: P937644

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937644
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-92765-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

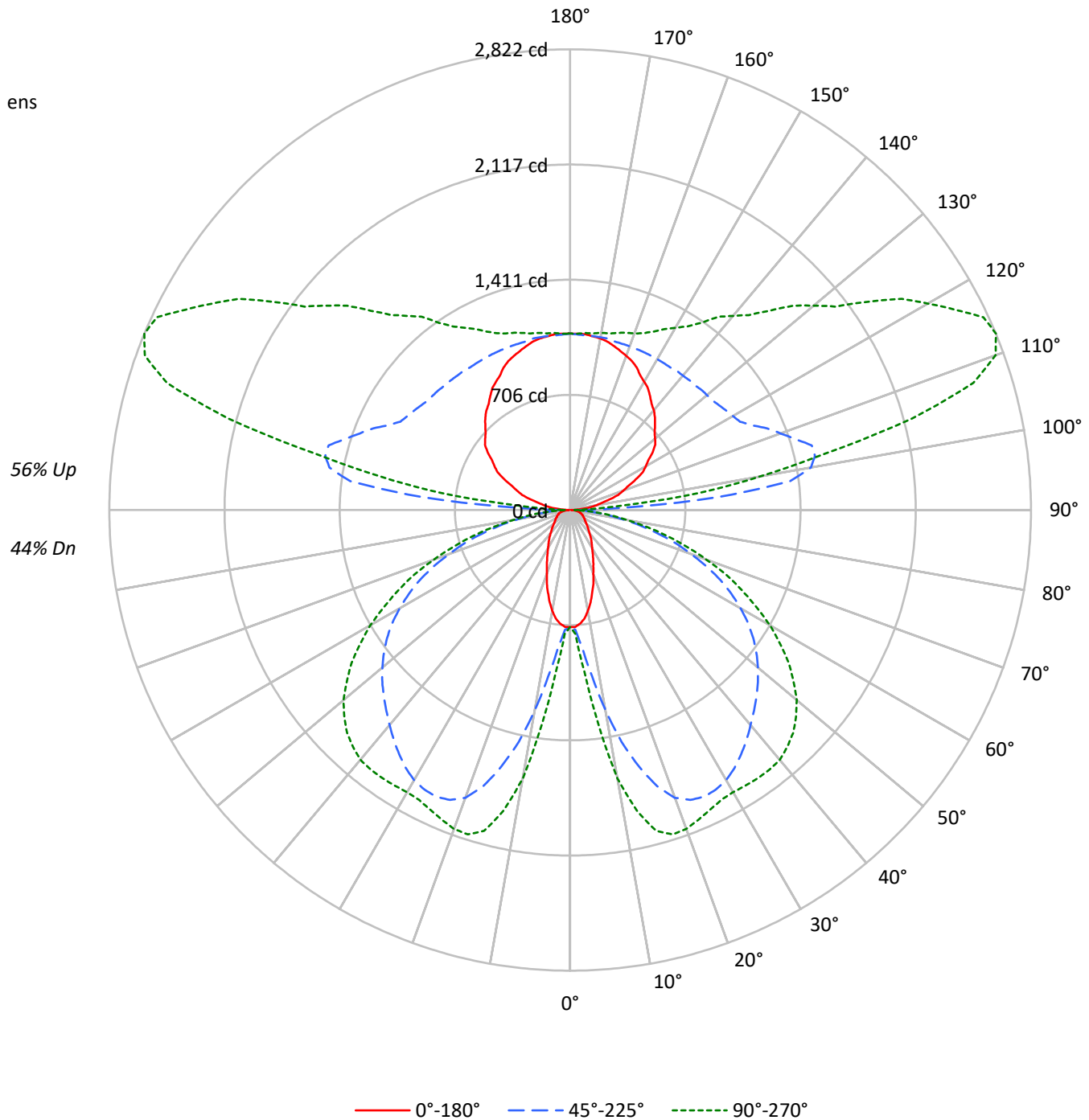
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12555.5 lumens
Efficiency: N/A
Efficacy: 108.2 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_{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: P937644
CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P937644

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3325	3325	3325
5°	3248	3843	4469
10°	2946	5602	7410
15°	2504	7319	8947
20°	2039	8482	9119
25°	1701	8876	8933
30°	1434	8932	8917
35°	1268	8784	9147
40°	1105	8591	9385
45°	1001	8450	9422
50°	918	8322	9266
55°	879	8136	8855
60°	900	7779	8207
65°	937	7236	7316
70°	997	6310	6180
75°	1105	5145	4823
80°	1208	3568	3250
85°	1071	1894	1663

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9422 cd/sqm



TEST NUMBER: P937644

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	0.7
10°-20°	410.9	3.3
20°-30°	718.7	5.7
30°-40°	925.2	7.4
40°-50°	1033.4	8.2
50°-60°	989.8	7.9
60°-70°	784.4	6.2
70°-80°	461.2	3.7
80°-90°	132.3	1.1
90°-100°	526.9	4.2
100°-110°	1385.2	11.0
110°-120°	1436.3	11.4
120°-130°	1152.1	9.2
130°-140°	904.0	7.2
140°-150°	693.8	5.5
150°-160°	499.7	4.0
160°-170°	305.7	2.4
170°-180°	103.3	0.8
0°-30°	1222.3	9.7
0°-40°	2147.5	17.1
0°-60°	4170.6	33.2
0°-90°	5548.5	44.2
90°-120°	3348.4	26.7
90°-150°	6098.3	48.6
90°-180°	7007.0	55.8
0°-180°	12555.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	698	749	843	954	989	64
15°	523	966	1627	1973	2035	146
25°	334	1095	1938	2023	2026	154
35°	226	1046	1825	1929	2005	141
45°	154	834	1613	1848	1931	119
55°	111	530	1369	1590	1634	101
65°	88	281	1016	1143	1159	87
75°	64	173	558	613	615	68
85°	23	53	138	152	154	24
90°	7	20	55	28	28	8
95°	70	273	908	468	318	77
105°	250	378	1531	2325	2169	265
115°	443	538	1227	2447	2793	438
125°	617	691	1116	1885	2224	547
135°	735	809	1081	1522	1726	569
145°	852	907	1067	1298	1400	534
155°	963	990	1067	1172	1206	443
165°	1040	1053	1067	1109	1123	293
175°	1081	1081	1074	1088	1088	103
180°	1081	1081	1081	1081	1081	



TEST NUMBER: P937644

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7
2.5°	716.7	716.7	721.3	723.6	728.2	730.5	735.1	739.7	753.6	755.9	760.5
5°	698.2	707.5	737.5	749.0	781.3	825.0	843.4	873.4	935.6	954.1	965.6
7.5°	670.6	691.3	765.1	783.5	864.2	979.4	1027.8	1092.3	1191.5	1239.9	1279.0
10°	626.8	670.6	802.0	845.8	977.1	1152.2	1242.1	1332.0	1481.8	1548.6	1573.9
12.5°	578.4	649.8	841.2	901.1	1090.0	1345.8	1454.1	1553.3	1723.7	1813.7	1827.4
15°	523.1	619.9	878.1	965.6	1209.9	1507.1	1627.0	1749.1	1908.1	1972.6	1988.8
17.5°	474.7	596.9	912.6	1004.8	1302.0	1652.3	1774.5	1875.8	2004.9	2048.7	2060.3
20°	414.8	560.0	935.6	1055.4	1398.8	1758.4	1875.8	1954.2	2041.8	2069.4	2074.0
22.5°	371.1	520.8	949.5	1073.9	1463.4	1822.9	1922.0	1984.1	2044.1	2053.3	2055.6
25°	334.2	477.0	947.1	1094.7	1518.6	1862.1	1938.1	1984.1	2018.8	2023.4	2023.4
27.5°	299.5	428.6	938.0	1099.3	1560.2	1871.3	1931.2	1963.5	1979.6	1988.8	1988.8
30°	269.6	382.6	914.9	1090.0	1578.6	1862.1	1910.5	1926.6	1942.7	1956.5	1963.5
32.5°	246.6	338.8	880.3	1071.6	1580.9	1839.0	1873.6	1882.8	1905.8	1938.1	1949.6
35°	225.9	295.0	841.2	1046.3	1567.0	1802.1	1825.2	1834.4	1880.5	1928.9	1945.0
37.5°	205.1	262.7	790.4	1002.5	1546.3	1758.4	1774.5	1790.6	1862.1	1919.6	1938.1
40°	184.3	235.1	730.5	954.1	1514.0	1705.3	1719.1	1744.5	1839.0	1905.8	1924.2
42.5°	168.2	212.0	666.0	903.3	1472.6	1645.4	1666.2	1703.0	1811.3	1882.8	1903.6
45°	154.4	189.0	596.9	834.2	1419.6	1583.2	1613.2	1663.8	1779.0	1848.2	1866.7
47.5°	140.6	172.8	525.4	762.8	1361.9	1521.0	1560.2	1617.8	1735.3	1802.1	1818.3
50°	129.1	156.7	454.0	686.7	1299.8	1454.1	1500.2	1560.2	1680.0	1742.2	1762.9
52.5°	119.8	142.8	387.2	610.7	1228.3	1385.0	1438.0	1500.2	1613.2	1673.1	1686.9
55°	110.6	131.3	329.5	530.0	1154.6	1311.3	1368.8	1428.8	1539.4	1590.1	1599.3
57.5°	106.0	122.2	281.1	454.0	1076.2	1228.3	1292.8	1348.2	1451.8	1491.0	1500.2
60°	99.1	115.2	244.3	389.5	991.0	1150.0	1205.2	1260.5	1348.2	1380.4	1387.3
62.5°	92.2	110.6	216.6	327.3	903.3	1057.8	1113.1	1163.8	1237.5	1260.5	1269.8
65°	87.6	106.0	195.9	281.1	813.5	961.0	1016.3	1060.0	1120.0	1143.1	1147.7
67.5°	82.9	101.4	179.7	242.0	723.6	864.2	905.7	947.1	993.2	1016.3	1018.6
70°	76.0	96.8	165.9	214.3	631.4	753.6	788.1	831.9	868.8	880.3	887.2
72.5°	71.4	89.9	156.7	193.6	536.9	647.6	679.8	705.2	737.5	749.0	749.0
75°	64.5	80.7	147.5	172.8	440.2	530.0	557.7	583.0	608.4	613.0	606.1
77.5°	57.6	71.4	126.7	145.2	343.4	419.4	442.5	456.2	477.0	481.6	484.0
80°	48.4	62.3	99.1	112.9	248.9	308.8	324.9	336.4	354.9	354.9	359.5
82.5°	36.9	48.4	71.4	80.7	168.2	212.0	225.9	232.7	244.3	244.3	244.3
85°	23.0	30.0	46.1	53.0	101.4	129.1	138.3	140.6	149.8	152.1	152.1
87.5°	11.5	16.1	30.0	32.3	53.0	66.8	66.8	71.4	71.4	69.2	66.8
90°	7.2	13.1	18.8	20.3	31.9	47.4	55.1	49.0	36.7	27.6	27.6
92.5°	29.0	78.4	127.8	140.0	196.8	272.6	310.4	272.1	195.4	137.9	132.4
95°	69.7	159.9	250.2	272.8	484.3	766.4	907.5	809.9	614.4	467.9	451.4
97.5°	120.4	200.0	279.7	299.6	652.5	1122.8	1358.0	1296.3	1172.8	1080.2	1048.6
100°	159.6	231.8	304.1	322.1	713.6	1235.6	1496.6	1501.1	1510.1	1516.9	1479.2
102.5°	193.0	260.3	327.7	344.5	741.6	1271.0	1535.7	1614.4	1771.8	1889.8	1857.5
105°	249.6	306.6	363.6	377.9	762.4	1275.1	1531.4	1707.7	2060.4	2325.0	2307.7
107.5°	307.6	360.8	414.0	427.3	766.3	1218.3	1444.3	1690.4	2182.4	2551.3	2555.5
110°	346.7	394.8	442.8	454.9	760.5	1168.0	1371.8	1646.8	2196.8	2609.4	2627.4



TEST NUMBER: P937644

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	385.2	431.0	476.8	488.3	760.8	1124.1	1305.8	1587.3	2150.2	2572.4	2600.1
115°	443.3	485.5	527.8	538.3	767.7	1073.7	1226.7	1497.9	2040.2	2446.9	2485.4
117.5°	500.5	538.9	577.3	586.9	782.0	1042.2	1172.3	1417.0	1906.4	2273.5	2316.1
120°	533.9	570.0	606.2	615.1	793.6	1031.6	1150.6	1374.2	1821.3	2156.7	2198.1
122.5°	566.6	603.0	639.5	648.5	810.3	1025.9	1133.8	1335.2	1737.9	2039.9	2080.8
125°	616.6	649.8	683.1	691.3	832.8	1021.4	1115.7	1286.8	1628.9	1885.4	1923.1
127.5°	657.3	690.7	724.3	732.7	855.3	1018.8	1100.5	1247.4	1541.1	1761.3	1793.1
130°	679.0	715.1	751.2	760.2	871.7	1020.4	1094.7	1225.4	1486.9	1683.0	1712.3
132.5°	701.5	737.6	773.7	782.7	885.0	1021.4	1089.6	1206.6	1440.7	1616.2	1642.5
135°	734.9	767.7	800.7	808.9	899.6	1020.5	1080.9	1178.9	1374.9	1522.0	1544.6
137.5°	769.0	801.5	834.1	842.2	921.3	1026.7	1079.4	1162.2	1328.0	1452.3	1470.9
140°	797.2	827.2	857.2	864.7	934.6	1027.8	1074.3	1145.9	1289.1	1396.5	1413.8
142.5°	819.0	846.7	874.5	881.4	945.7	1031.4	1074.3	1137.2	1263.0	1357.3	1372.2
145°	852.4	876.6	900.8	906.8	960.3	1031.5	1067.1	1118.6	1221.4	1298.5	1309.8
147.5°	885.7	909.3	932.8	938.7	981.6	1038.6	1067.1	1107.6	1188.5	1249.2	1258.5
150°	907.5	928.8	950.1	955.4	992.6	1042.3	1067.1	1101.3	1169.7	1220.9	1228.5
152.5°	930.0	946.2	962.3	966.3	999.9	1044.7	1067.1	1096.3	1154.7	1198.4	1204.2
155°	963.3	975.3	987.2	990.2	1015.8	1050.0	1067.1	1090.3	1136.8	1171.6	1175.3
157.5°	988.0	999.6	1011.3	1014.2	1031.8	1055.3	1067.1	1085.2	1121.3	1148.4	1151.0
160°	1004.8	1013.8	1022.8	1025.1	1039.1	1057.8	1067.1	1082.6	1113.6	1136.8	1138.4
162.5°	1021.4	1028.2	1035.0	1036.7	1046.8	1060.3	1067.1	1080.2	1106.3	1125.9	1127.4
165°	1039.6	1045.7	1051.8	1053.3	1058.0	1064.1	1067.1	1076.4	1095.2	1109.2	1110.8
167.5°	1056.2	1059.1	1062.1	1062.7	1066.6	1071.7	1074.3	1080.5	1092.7	1101.9	1102.5
170°	1067.1	1070.0	1073.0	1073.6	1073.9	1074.2	1074.3	1080.5	1092.7	1101.9	1101.9
172.5°	1073.0	1073.6	1074.2	1074.3	1074.3	1074.3	1074.3	1079.2	1088.9	1096.1	1095.6
175°	1080.9	1080.9	1080.9	1080.9	1078.7	1075.8	1074.3	1077.4	1083.5	1088.1	1088.1
177.5°	1080.9	1080.9	1080.9	1080.9	1079.2	1077.0	1075.8	1078.3	1083.1	1086.7	1086.1
180°	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9	1080.9



TEST NUMBER: P937644

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	716.7	716.7
2.5°	765.1	760.5
5°	984.0	988.6
7.5°	1325.1	1322.8
10°	1647.7	1668.5
12.5°	1882.8	1887.4
15°	2025.6	2034.9
17.5°	2080.9	2083.3
20°	2083.3	2078.7
22.5°	2057.9	2053.3
25°	2028.0	2025.6
27.5°	2000.3	2002.6
30°	1988.8	1995.7
32.5°	1988.8	2000.3
35°	1993.4	2004.9
37.5°	1991.1	2004.9
40°	1981.9	1998.0
42.5°	1956.5	1968.0
45°	1917.3	1931.2
47.5°	1866.7	1875.8
50°	1802.1	1811.3
52.5°	1721.5	1723.7
55°	1624.7	1633.9
57.5°	1521.0	1523.3
60°	1405.7	1412.7
62.5°	1283.6	1283.6
65°	1154.6	1159.2
67.5°	1020.9	1032.4
70°	884.9	887.2
72.5°	751.3	751.3
75°	613.0	615.3
77.5°	481.6	481.6
80°	357.2	359.5
82.5°	246.6	251.2
85°	154.4	154.4
87.5°	71.4	64.5
90°	27.6	27.6
92.5°	110.5	88.5
95°	384.9	318.5
97.5°	922.2	795.8
100°	1328.7	1178.1
102.5°	1728.5	1599.6
105°	2238.3	2169.0
107.5°	2572.3	2589.1
110°	2699.6	2771.8



TEST NUMBER: P937644

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2711.0	2821.9
115°	2639.1	2793.0
117.5°	2486.7	2657.3
120°	2363.9	2529.6
122.5°	2244.3	2407.7
125°	2073.6	2224.2
127.5°	1920.1	2047.2
130°	1829.7	1947.1
132.5°	1747.6	1852.7
135°	1635.2	1725.8
137.5°	1545.0	1619.2
140°	1483.1	1552.4
142.5°	1431.9	1491.5
145°	1355.0	1400.1
147.5°	1295.9	1333.3
150°	1258.8	1289.1
152.5°	1227.0	1249.9
155°	1190.5	1205.7
157.5°	1161.6	1172.3
160°	1144.5	1150.6
162.5°	1133.1	1139.0
165°	1116.9	1123.0
167.5°	1105.1	1107.7
170°	1101.9	1101.9
172.5°	1093.4	1091.1
175°	1088.1	1088.1
177.5°	1083.5	1080.9
180°	1080.9	1080.9



TEST NUMBER: P937644

CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3000K

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	4.62	5.47	5.62	6.48	7.83	17.80	18.65	18.80	19.66	21.01
	3H	5.33	6.09	6.34	7.11	8.48	19.64	20.40	20.65	21.42	22.79
	4H	5.63	6.35	6.65	7.37	8.75	20.29	21.01	21.31	22.03	23.41
	6H	5.88	6.54	6.91	7.57	8.96	20.72	21.38	21.75	22.41	23.80
	8H	5.94	6.58	6.98	7.62	9.01	20.84	21.47	21.87	22.52	23.90
	12H	5.96	6.56	7.00	7.60	9.01	20.90	21.50	21.95	22.55	23.96
4H	2H	11.84	12.56	12.87	13.58	14.96	18.08	18.80	19.10	19.82	21.20
	3H	13.40	14.01	14.44	15.06	16.45	20.12	20.72	21.16	21.78	23.17
	4H	13.50	14.05	14.54	15.10	16.51	20.89	21.44	21.93	22.48	23.90
	6H	13.51	13.98	14.56	15.05	16.46	21.42	21.90	22.48	22.97	24.38
	8H	13.48	13.93	14.54	14.99	16.41	21.59	22.03	22.64	23.09	24.52
	12H	13.44	13.84	14.51	14.92	16.35	21.68	22.08	22.75	23.16	24.59
8H	4H	14.94	15.39	16.00	16.45	17.87	20.95	21.39	22.00	22.45	23.88
	6H	15.18	15.55	16.26	16.65	18.08	21.57	21.94	22.65	23.05	24.47
	8H	15.20	15.52	16.29	16.61	18.05	21.79	22.12	22.88	23.20	24.64
	12H	15.17	15.45	16.26	16.54	18.02	21.94	22.22	23.03	23.30	24.78
12H	4H	15.08	15.49	16.16	16.56	17.99	20.90	21.30	21.97	22.38	23.80
	6H	15.44	15.77	16.53	16.85	18.29	21.56	21.88	22.64	22.97	24.41
	8H	15.51	15.80	16.60	16.88	18.36	21.79	22.07	22.88	23.15	24.63