

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: P936878

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936878
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

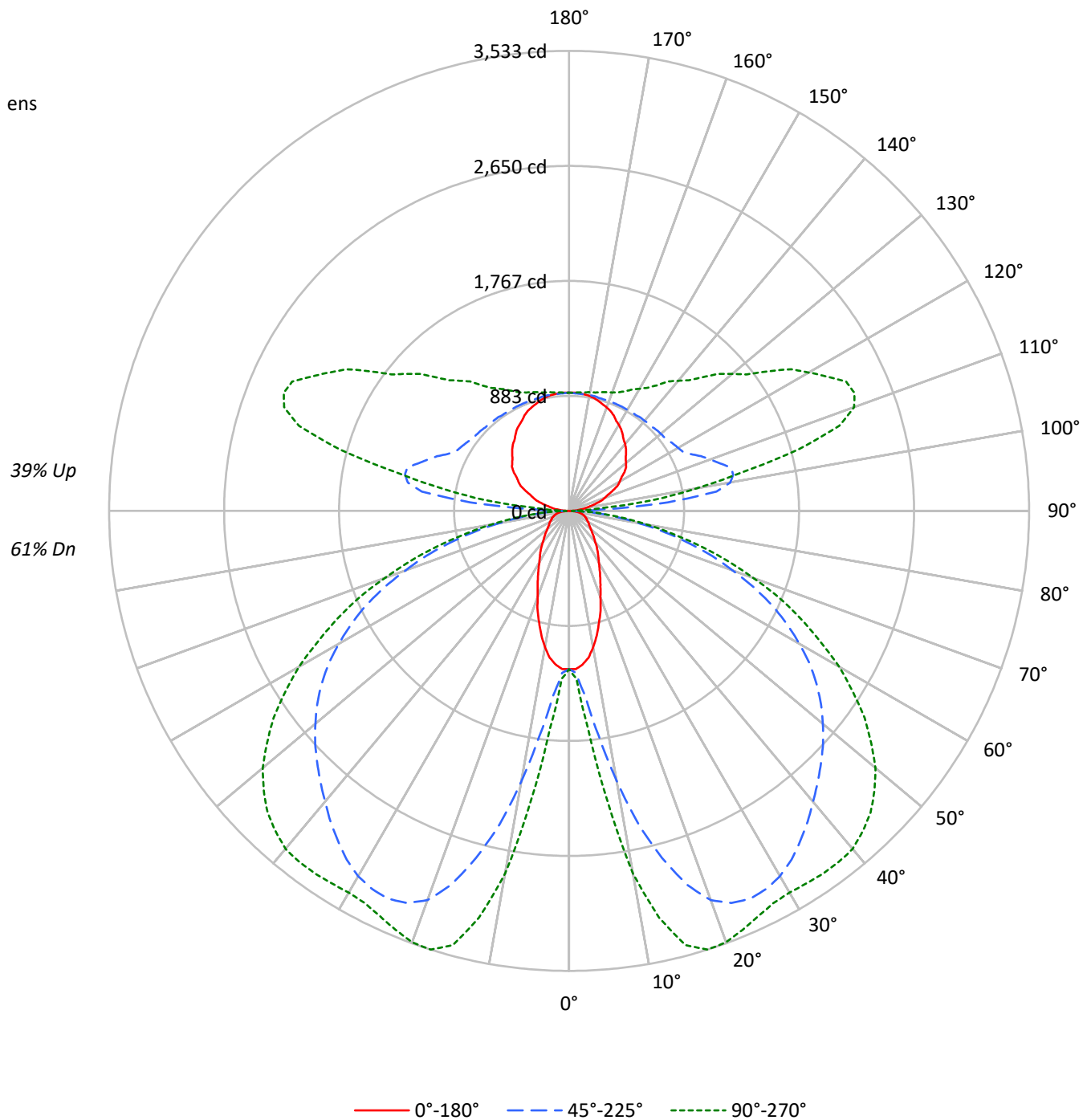
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15294.8 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 135.6
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: P936878
CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P936878

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3759	3759	3759
5°	3674	4346	5053
10°	3334	6337	8377
15°	2834	8281	10116
20°	2308	9599	10309
25°	1927	10047	10100
30°	1625	10113	10081
35°	1438	9948	10341
40°	1254	9732	10611
45°	1136	9575	10652
50°	1043	9435	10476
55°	1000	9228	10012
60°	1024	8827	9279
65°	1068	8214	8271
70°	1141	7169	6987
75°	1268	5850	5453
80°	1395	4063	3674
85°	1264	2159	1881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10652 cd/sqm



TEST NUMBER: P936878

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.2	1.0
10°-20°	696.8	4.6
20°-30°	1218.8	8.0
30°-40°	1569.0	10.3
40°-50°	1752.5	11.5
50°-60°	1678.5	11.0
60°-70°	1330.2	8.7
70°-80°	782.2	5.1
80°-90°	220.8	1.4
90°-100°	442.8	2.9
100°-110°	1164.2	7.6
110°-120°	1207.1	7.9
120°-130°	968.3	6.3
130°-140°	759.7	5.0
140°-150°	583.1	3.8
150°-160°	420.0	2.7
160°-170°	256.9	1.7
170°-180°	86.8	0.6
0°-30°	2072.8	13.6
0°-40°	3641.8	23.8
0°-60°	7072.8	46.2
0°-90°	9406.0	61.5
90°-120°	2814.0	18.4
90°-150°	5125.1	33.5
90°-180°	5889.0	38.5
0°-180°	15294.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1184	1270	1430	1618	1677	109
15°	887	1638	2759	3345	3451	247
25°	567	1856	3287	3431	3435	261
35°	383	1774	3095	3271	3400	239
45°	262	1415	2736	3134	3275	203
55°	188	899	2321	2697	2771	171
65°	148	477	1723	1938	1966	147
75°	109	293	946	1040	1044	115
85°	39	90	234	258	262	41
90°	6	17	46	23	23	8
95°	59	229	763	393	268	65
105°	210	318	1287	1954	1823	222
115°	372	452	1031	2056	2347	368
125°	518	581	938	1584	1869	460
135°	618	680	908	1279	1450	478
145°	716	762	897	1091	1177	449
155°	810	832	897	985	1013	372
165°	874	885	897	932	944	247
175°	908	908	903	914	914	86
180°	908	908	908	908	908	



TEST NUMBER: P936878
 CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4
2.5°	1215.4	1215.4	1223.2	1227.2	1235.0	1238.9	1246.7	1254.5	1278.0	1281.9	1289.7
5°	1184.2	1199.8	1250.6	1270.2	1324.9	1399.1	1430.4	1481.2	1586.7	1617.9	1637.5
7.5°	1137.3	1172.5	1297.5	1328.7	1465.5	1660.9	1743.1	1852.4	2020.5	2102.5	2169.0
10°	1063.0	1137.3	1360.0	1434.2	1657.1	1954.1	2106.5	2258.9	2512.9	2626.2	2669.2
12.5°	981.0	1102.1	1426.4	1528.1	1848.6	2282.3	2466.0	2634.1	2923.3	3075.7	3099.1
15°	887.1	1051.3	1489.0	1637.5	2051.8	2555.9	2759.1	2966.3	3236.0	3345.3	3372.7
17.5°	805.1	1012.2	1547.6	1703.9	2208.0	2802.1	3009.3	3181.2	3400.0	3474.3	3493.9
20°	703.4	949.7	1586.7	1789.9	2372.2	2981.9	3181.2	3314.0	3462.5	3509.5	3517.3
22.5°	629.2	883.3	1610.1	1821.1	2481.7	3091.3	3259.3	3364.9	3466.5	3482.2	3486.0
25°	566.7	809.0	1606.2	1856.3	2575.4	3157.8	3286.7	3364.9	3423.5	3431.3	3431.3
27.5°	508.1	726.9	1590.6	1864.1	2645.8	3173.3	3275.0	3329.7	3357.0	3372.7	3372.7
30°	457.2	648.8	1551.5	1848.6	2677.1	3157.8	3239.8	3267.2	3294.5	3318.0	3329.7
32.5°	418.2	574.4	1492.9	1817.3	2680.9	3118.7	3177.3	3193.0	3232.0	3286.7	3306.3
35°	383.0	500.2	1426.4	1774.3	2657.5	3056.1	3095.3	3110.8	3189.0	3271.1	3298.5
37.5°	347.9	445.6	1340.5	1700.1	2622.4	2981.9	3009.3	3036.6	3157.8	3255.5	3286.7
40°	312.7	398.6	1238.9	1617.9	2567.6	2892.0	2915.4	2958.4	3118.7	3232.0	3263.3
42.5°	285.2	359.6	1129.5	1531.9	2497.2	2790.4	2825.6	2888.1	3071.8	3193.0	3228.1
45°	261.9	320.4	1012.2	1414.7	2407.4	2684.9	2735.7	2821.6	3017.1	3134.3	3165.6
47.5°	238.4	293.1	891.0	1293.6	2309.7	2579.4	2645.8	2743.4	2942.8	3056.1	3083.5
50°	218.9	265.7	769.9	1164.7	2204.2	2466.0	2544.2	2645.8	2849.0	2954.5	2989.7
52.5°	203.2	242.3	656.6	1035.7	2083.0	2348.8	2438.7	2544.2	2735.7	2837.3	2860.8
55°	187.6	222.7	558.9	898.8	1958.0	2223.7	2321.4	2423.0	2610.6	2696.6	2712.2
57.5°	179.7	207.2	476.8	769.9	1825.1	2083.0	2192.5	2286.2	2462.1	2528.5	2544.2
60°	168.0	195.4	414.2	660.4	1680.4	1950.1	2044.0	2137.7	2286.2	2341.0	2352.7
62.5°	156.3	187.6	367.4	554.9	1531.9	1793.8	1887.6	1973.6	2098.7	2137.7	2153.3
65°	148.5	179.7	332.2	476.8	1379.6	1629.7	1723.4	1797.8	1899.3	1938.4	1946.3
67.5°	140.7	172.0	304.9	410.4	1227.2	1465.5	1535.9	1606.2	1684.4	1723.4	1727.4
70°	129.0	164.2	281.4	363.4	1070.8	1278.0	1336.6	1410.9	1473.4	1492.9	1504.6
72.5°	121.2	152.4	265.7	328.2	910.6	1098.2	1152.9	1195.9	1250.6	1270.2	1270.2
75°	109.4	136.8	250.1	293.1	746.4	898.8	945.8	988.8	1031.8	1039.5	1027.8
77.5°	97.7	121.2	214.9	246.2	582.3	711.3	750.3	773.8	809.0	816.8	820.7
80°	82.0	105.5	168.0	191.5	422.1	523.7	551.1	570.6	601.9	601.9	609.6
82.5°	62.5	82.0	121.2	136.8	285.2	359.6	383.0	394.7	414.2	414.2	414.2
85°	39.0	50.8	78.2	89.9	172.0	218.9	234.5	238.4	254.0	257.9	257.9
87.5°	19.5	27.3	50.8	54.7	89.9	113.3	113.3	121.2	121.2	117.2	113.3
90°	6.1	10.9	15.9	17.1	26.8	39.8	46.3	41.2	30.9	23.2	23.2
92.5°	24.4	65.8	107.3	117.6	165.4	229.0	260.9	228.7	164.2	115.9	111.2
95°	58.6	134.4	210.3	229.2	407.0	644.2	762.7	680.5	516.4	393.2	379.2
97.5°	101.2	168.1	235.1	251.8	548.3	943.6	1141.3	1089.4	985.6	907.8	881.3
100°	134.1	194.8	255.5	270.7	599.7	1038.4	1257.7	1261.5	1269.1	1274.8	1243.1
102.5°	162.2	218.8	275.4	289.6	623.3	1068.2	1290.7	1356.7	1489.0	1588.2	1561.0
105°	209.7	257.6	305.6	317.6	640.7	1071.6	1287.0	1435.2	1731.6	1954.0	1939.4
107.5°	258.5	303.2	348.0	359.1	644.1	1024.0	1213.9	1420.6	1834.2	2144.3	2147.8
110°	291.5	331.8	372.2	382.3	639.1	981.7	1152.9	1384.0	1846.3	2193.0	2208.1



TEST NUMBER: P936878

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	323.7	362.2	400.6	410.3	639.3	944.7	1097.4	1334.0	1807.0	2161.9	2185.2
115°	372.5	408.0	443.5	452.4	645.2	902.4	1031.0	1258.8	1714.6	2056.4	2088.7
117.5°	420.6	452.9	485.1	493.2	657.2	875.9	985.2	1190.9	1602.2	1910.7	1946.5
120°	448.7	479.1	509.4	517.0	666.9	867.0	967.0	1154.9	1530.7	1812.6	1847.4
122.5°	476.1	506.8	537.4	545.1	681.0	862.3	952.9	1122.1	1460.6	1714.4	1748.7
125°	518.2	546.1	574.0	581.0	700.0	858.4	937.7	1081.4	1368.9	1584.5	1616.2
127.5°	552.4	580.6	608.8	615.8	718.8	856.1	924.9	1048.3	1295.1	1480.3	1507.0
130°	570.7	601.1	631.3	638.9	732.6	857.5	920.0	1029.9	1249.7	1414.4	1439.1
132.5°	589.5	619.9	650.3	657.9	743.8	858.4	915.7	1014.1	1210.8	1358.3	1380.4
135°	617.6	645.2	672.8	679.7	756.0	857.6	908.4	990.8	1155.6	1279.1	1298.2
137.5°	646.2	673.6	701.0	707.8	774.3	862.9	907.2	976.8	1116.2	1220.6	1236.1
140°	670.0	695.2	720.4	726.7	785.4	863.7	902.9	963.0	1083.4	1173.6	1188.2
142.5°	688.3	711.6	735.0	740.8	794.8	866.9	902.9	955.7	1061.4	1140.7	1153.2
145°	716.3	736.6	757.0	762.1	807.0	866.9	896.9	940.1	1026.5	1091.3	1100.8
147.5°	744.4	764.2	784.0	788.9	824.9	872.9	896.9	930.9	998.9	1049.9	1057.8
150°	762.7	780.5	798.5	802.9	834.3	876.0	896.9	925.6	982.9	1026.0	1032.4
152.5°	781.6	795.1	808.7	812.1	840.4	878.0	896.9	921.4	970.4	1007.2	1012.0
155°	809.6	819.7	829.7	832.2	853.8	882.5	896.9	916.4	955.3	984.6	987.8
157.5°	830.4	840.2	849.8	852.3	867.2	887.0	896.9	912.0	942.3	965.1	967.4
160°	844.4	852.0	859.6	861.5	873.3	889.0	896.9	909.9	935.8	955.3	956.6
162.5°	858.4	864.1	869.8	871.2	879.8	891.1	896.9	907.8	929.7	946.2	947.3
165°	873.7	878.8	883.9	885.2	889.1	894.3	896.9	904.8	920.4	932.2	933.4
167.5°	887.7	890.1	892.5	893.1	896.4	900.7	902.9	908.0	918.4	926.1	926.6
170°	896.9	899.2	901.7	902.3	902.5	902.8	902.9	908.0	918.4	926.1	926.1
172.5°	901.7	902.2	902.8	902.9	902.9	902.9	902.9	906.9	915.1	921.2	920.7
175°	908.4	908.4	908.4	908.4	906.5	904.1	902.9	905.4	910.7	914.5	914.5
177.5°	908.4	908.4	908.4	908.4	907.0	905.1	904.2	906.2	910.3	913.3	912.7
180°	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4



TEST NUMBER: P936878

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1215.4	1215.4
2.5°	1297.5	1289.7
5°	1668.8	1676.6
7.5°	2247.2	2243.2
10°	2794.3	2829.4
12.5°	3193.0	3200.8
15°	3435.2	3450.9
17.5°	3529.0	3532.9
20°	3532.9	3525.1
22.5°	3489.9	3482.2
25°	3439.2	3435.2
27.5°	3392.2	3396.2
30°	3372.7	3384.4
32.5°	3372.7	3392.2
35°	3380.5	3400.0
37.5°	3376.6	3400.0
40°	3361.0	3388.3
42.5°	3318.0	3337.5
45°	3251.5	3275.0
47.5°	3165.6	3181.2
50°	3056.1	3071.8
52.5°	2919.3	2923.3
55°	2755.2	2770.9
57.5°	2579.4	2583.2
60°	2384.0	2395.7
62.5°	2176.8	2176.8
65°	1958.0	1965.8
67.5°	1731.3	1750.8
70°	1500.7	1504.6
72.5°	1274.0	1274.0
75°	1039.5	1043.5
77.5°	816.8	816.8
80°	605.8	609.6
82.5°	418.2	426.0
85°	261.9	261.9
87.5°	121.2	109.4
90°	23.2	23.2
92.5°	92.8	74.3
95°	323.4	267.6
97.5°	775.0	668.8
100°	1116.6	990.1
102.5°	1452.7	1344.3
105°	1881.2	1822.9
107.5°	2161.8	2175.9
110°	2268.8	2329.5



TEST NUMBER: P936878

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2278.4	2371.6
115°	2218.0	2347.3
117.5°	2089.8	2233.2
120°	1986.7	2125.9
122.5°	1886.1	2023.5
125°	1742.7	1869.3
127.5°	1613.7	1720.5
130°	1537.8	1636.4
132.5°	1468.7	1557.1
135°	1374.3	1450.4
137.5°	1298.5	1360.8
140°	1246.4	1304.7
142.5°	1203.4	1253.5
145°	1138.7	1176.7
147.5°	1089.1	1120.6
150°	1057.9	1083.4
152.5°	1031.3	1050.5
155°	1000.6	1013.3
157.5°	976.2	985.2
160°	961.8	967.0
162.5°	952.3	957.2
165°	938.7	943.8
167.5°	928.8	931.0
170°	926.1	926.1
172.5°	918.9	917.0
175°	914.5	914.5
177.5°	910.6	908.4
180°	908.4	908.4



TEST NUMBER: P936878
 CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-3000K

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	6.59	7.62	7.44	8.49	9.58	19.79	20.81	20.63	21.68	22.78
	3H	7.31	8.24	8.17	9.12	10.24	21.64	22.57	22.50	23.45	24.57
	4H	7.62	8.49	8.49	9.38	10.51	22.30	23.17	23.17	24.06	25.19
	6H	7.88	8.68	8.76	9.58	10.72	22.74	23.55	23.63	24.44	25.59
	8H	7.95	8.72	8.84	9.63	10.78	22.87	23.64	23.76	24.55	25.70
	12H	7.97	8.71	8.87	9.61	10.78	22.95	23.68	23.85	24.59	25.76
4H	2H	13.84	14.71	14.71	15.60	16.73	20.08	20.95	20.96	21.84	22.97
	3H	15.42	16.15	16.31	17.07	18.22	22.15	22.88	23.03	23.80	24.94
	4H	15.52	16.19	16.42	17.11	18.28	22.92	23.59	23.82	24.51	25.68
	6H	15.54	16.12	16.46	17.06	18.23	23.48	24.06	24.39	25.00	26.17
	8H	15.52	16.06	16.44	17.00	18.19	23.65	24.19	24.56	25.12	26.31
	12H	15.49	15.98	16.43	16.93	18.12	23.75	24.24	24.69	25.19	26.38
8H	4H	16.98	17.53	17.90	18.46	19.65	23.00	23.54	23.91	24.47	25.66
	6H	17.23	17.68	18.18	18.66	19.84	23.64	24.09	24.58	25.06	26.25
	8H	17.25	17.65	18.21	18.62	19.82	23.86	24.26	24.82	25.23	26.43
	12H	17.23	17.58	18.19	18.54	19.79	24.02	24.37	24.98	25.33	26.58
12H	4H	17.14	17.63	18.07	18.58	19.77	22.96	23.45	23.90	24.40	25.59
	6H	17.50	17.90	18.45	18.86	20.06	23.62	24.02	24.58	24.99	26.19
	8H	17.57	17.92	18.53	18.88	20.14	23.87	24.22	24.82	25.18	26.43