

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: P936880

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

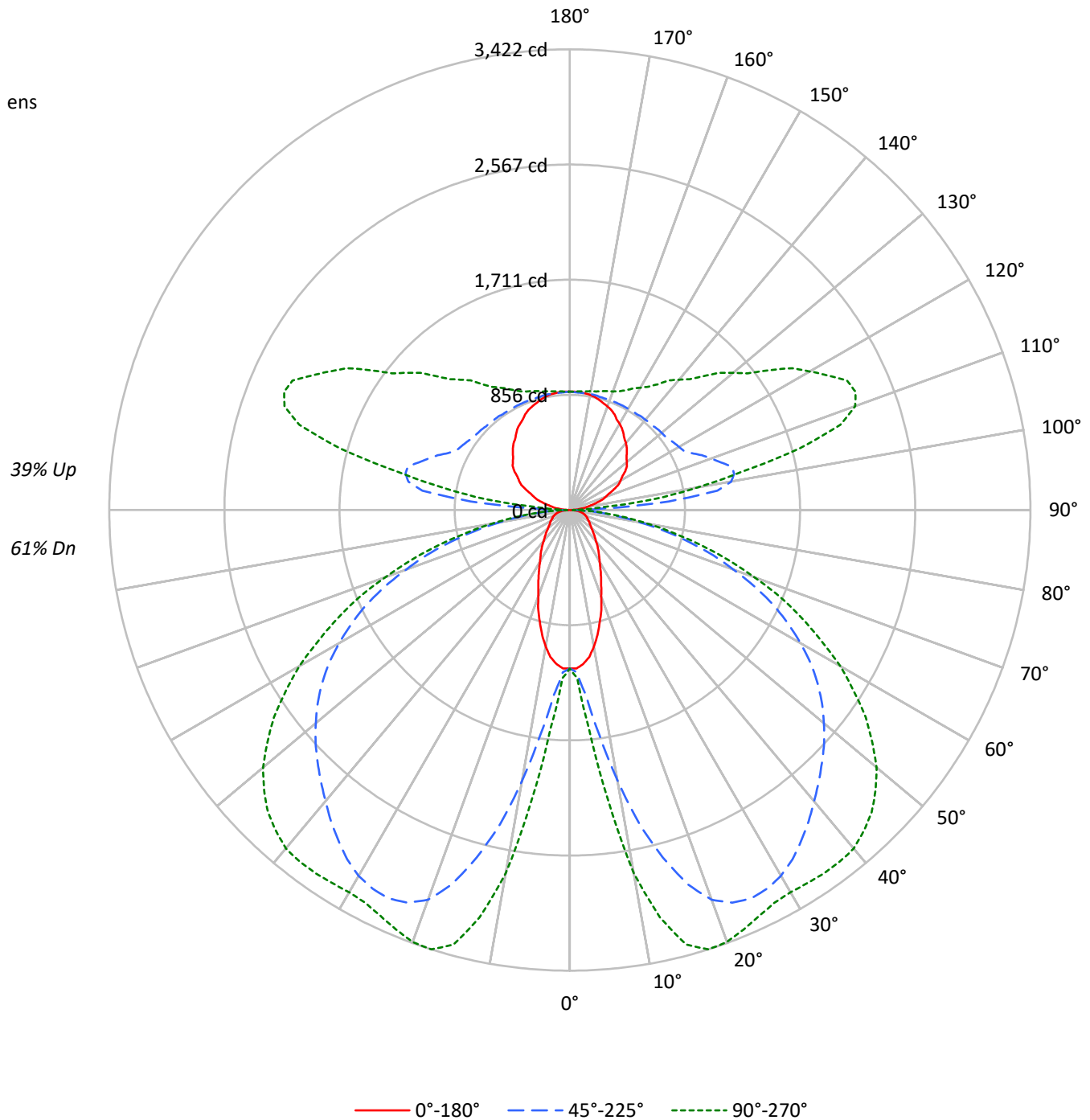
Test Method: LM-79-2019  
Report Number: P936880  
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14813.9 lumens  
Efficiency: N/A  
Efficacy: 109.2 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<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: P936880  
CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P936880

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

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

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

	0°	45°	90°
0°	3641	3641	3641
5°	3559	4210	4894
10°	3229	6138	8114
15°	2745	8021	9798
20°	2236	9297	9985
25°	1866	9731	9782
30°	1574	9795	9764
35°	1392	9635	10016
40°	1214	9426	10277
45°	1100	9274	10317
50°	1010	9138	10147
55°	968	8938	9697
60°	992	8549	8987
65°	1034	7956	8011
70°	1104	6944	6768
75°	1229	5666	5282
80°	1352	3934	3559
85°	1225	2091	1821

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10317 cd/sqm



TEST NUMBER: P936880

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.3	1.0
10°-20°	674.9	4.6
20°-30°	1180.5	8.0
30°-40°	1519.6	10.3
40°-50°	1697.4	11.5
50°-60°	1625.7	11.0
60°-70°	1288.4	8.7
70°-80°	757.6	5.1
80°-90°	213.8	1.4
90°-100°	428.9	2.9
100°-110°	1127.5	7.6
110°-120°	1169.1	7.9
120°-130°	937.8	6.3
130°-140°	735.9	5.0
140°-150°	564.8	3.8
150°-160°	406.7	2.7
160°-170°	248.9	1.7
170°-180°	84.1	0.6
0°-30°	2007.7	13.6
0°-40°	3527.3	23.8
0°-60°	6850.4	46.2
0°-90°	9110.2	61.5
90°-120°	2725.5	18.4
90°-150°	4964.0	33.5
90°-180°	5704.0	38.5
0°-180°	14813.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1147	1230	1385	1567	1624	106
15°	859	1586	2672	3240	3342	239
25°	549	1798	3183	3323	3327	253
35°	371	1718	2998	3168	3293	232
45°	254	1370	2650	3036	3172	196
55°	182	871	2248	2612	2684	166
65°	144	462	1669	1877	1904	143
75°	106	284	916	1007	1011	111
85°	38	87	227	250	254	40
90°	6	16	45	22	22	7
95°	57	222	739	381	259	63
105°	203	308	1247	1892	1766	215
115°	361	438	998	1992	2274	356
125°	502	563	908	1535	1810	446
135°	598	658	880	1239	1405	463
145°	694	738	869	1057	1140	435
155°	784	806	869	954	982	360
165°	846	857	869	903	914	239
175°	880	880	874	886	886	84
180°	880	880	880	880	880	



TEST NUMBER: P936880  
 CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2
2.5°	1177.2	1177.2	1184.8	1188.6	1196.1	1200.0	1207.5	1215.0	1237.8	1241.6	1249.1
5°	1147.0	1162.0	1211.3	1230.2	1283.2	1355.1	1385.4	1434.6	1536.8	1567.1	1586.0
7.5°	1101.5	1135.6	1256.7	1287.0	1419.4	1608.7	1688.2	1794.2	1957.0	2036.4	2100.8
10°	1029.6	1101.5	1317.2	1389.1	1605.0	1892.6	2040.3	2187.9	2433.9	2543.6	2585.3
12.5°	950.1	1067.4	1381.6	1480.1	1790.4	2210.5	2388.5	2551.3	2831.4	2979.0	3001.7
15°	859.2	1018.2	1442.1	1586.0	1987.3	2475.6	2672.4	2873.0	3134.2	3240.1	3266.7
17.5°	779.8	980.4	1499.0	1650.3	2138.6	2714.0	2914.7	3081.2	3293.1	3365.0	3384.0
20°	681.3	919.9	1536.8	1733.6	2297.6	2888.1	3081.2	3209.9	3353.7	3399.1	3406.7
22.5°	609.4	855.5	1559.5	1763.9	2403.6	2994.1	3156.8	3259.1	3357.5	3372.7	3376.4
25°	548.8	783.6	1555.7	1798.0	2494.5	3058.5	3183.4	3259.1	3315.9	3323.4	3323.4
27.5°	492.1	704.0	1540.6	1805.5	2562.6	3073.6	3172.0	3225.0	3251.5	3266.7	3266.7
30°	442.8	628.4	1502.7	1790.4	2592.9	3058.5	3137.9	3164.5	3190.9	3213.7	3225.0
32.5°	405.0	556.4	1446.0	1760.2	2596.6	3020.7	3077.4	3092.6	3130.4	3183.4	3202.3
35°	370.9	484.5	1381.6	1718.5	2573.9	2960.0	2997.9	3013.0	3088.8	3168.2	3194.8
37.5°	336.9	431.6	1298.3	1646.6	2539.9	2888.1	2914.7	2941.1	3058.5	3153.1	3183.4
40°	302.8	386.1	1200.0	1567.1	2486.9	2801.1	2823.7	2865.4	3020.7	3130.4	3160.7
42.5°	276.3	348.3	1094.0	1483.8	2418.7	2702.6	2736.7	2797.3	2975.2	3092.6	3126.6
45°	253.6	310.4	980.4	1370.2	2331.7	2600.5	2649.6	2732.9	2922.2	3035.8	3066.0
47.5°	230.9	283.9	863.0	1253.0	2237.1	2498.3	2562.6	2657.2	2850.3	2960.0	2986.6
50°	212.0	257.4	745.7	1128.0	2134.9	2388.5	2464.2	2562.6	2759.5	2861.7	2895.8
52.5°	196.8	234.6	635.9	1003.1	2017.5	2274.9	2362.0	2464.2	2649.6	2748.1	2770.8
55°	181.7	215.7	541.3	870.6	1896.4	2153.8	2248.5	2346.8	2528.6	2611.8	2626.9
57.5°	174.1	200.6	461.8	745.7	1767.7	2017.5	2123.5	2214.4	2384.7	2449.0	2464.2
60°	162.7	189.3	401.2	639.7	1627.6	1888.8	1979.7	2070.5	2214.4	2267.4	2278.7
62.5°	151.4	181.7	355.8	537.5	1483.8	1737.4	1828.3	1911.5	2032.7	2070.5	2085.6
65°	143.8	174.1	321.7	461.8	1336.2	1578.4	1669.2	1741.3	1839.6	1877.4	1885.1
67.5°	136.3	166.6	295.3	397.5	1188.6	1419.4	1487.6	1555.7	1631.4	1669.2	1673.1
70°	124.9	159.0	272.6	352.0	1037.1	1237.8	1294.6	1366.5	1427.1	1446.0	1457.3
72.5°	117.4	147.6	257.4	317.9	881.9	1063.7	1116.7	1158.3	1211.3	1230.2	1230.2
75°	106.0	132.5	242.3	283.9	722.9	870.6	916.0	957.7	999.3	1006.9	995.5
77.5°	94.6	117.4	208.2	238.5	564.0	688.9	726.8	749.5	783.6	791.1	794.9
80°	79.5	102.2	162.7	185.5	408.8	507.2	533.7	552.7	582.9	582.9	590.5
82.5°	60.5	79.5	117.4	132.5	276.3	348.3	370.9	382.3	401.2	401.2	401.2
85°	37.8	49.2	75.7	87.1	166.6	212.0	227.1	230.9	246.0	249.8	249.8
87.5°	18.9	26.5	49.2	53.0	87.1	109.7	109.7	117.4	117.4	113.5	109.7
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	39.9	29.9	22.4	22.4
92.5°	23.6	63.7	103.9	113.9	160.2	221.8	252.7	221.5	159.0	112.2	107.7
95°	56.7	130.2	203.7	222.0	394.2	623.9	738.7	659.1	500.1	380.9	367.3
97.5°	98.0	162.8	227.7	243.9	531.1	913.9	1105.4	1055.2	954.6	879.3	853.6
100°	129.9	188.7	247.4	262.1	580.8	1005.7	1218.2	1221.8	1229.2	1234.7	1204.1
102.5°	157.1	211.9	266.7	280.5	603.7	1034.6	1250.1	1314.1	1442.1	1538.2	1512.0
105°	203.1	249.5	296.0	307.6	620.6	1037.9	1246.6	1390.1	1677.2	1892.5	1878.4
107.5°	250.4	293.7	337.0	347.8	623.8	991.8	1175.7	1376.0	1776.5	2076.8	2080.3
110°	282.3	321.4	360.5	370.3	619.0	950.8	1116.7	1340.5	1788.2	2124.0	2138.7



TEST NUMBER: P936880

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.5	350.8	388.0	397.4	619.2	915.0	1062.9	1292.0	1750.2	2093.9	2116.5
115°	360.8	395.2	429.6	438.2	625.0	874.0	998.5	1219.2	1660.6	1991.7	2023.1
117.5°	407.4	438.6	469.9	477.7	636.5	848.3	954.2	1153.4	1551.8	1850.6	1885.3
120°	434.6	464.0	493.4	500.7	646.0	839.7	936.6	1118.6	1482.5	1755.6	1789.3
122.5°	461.2	490.9	520.5	527.9	659.6	835.1	922.9	1086.8	1414.6	1660.5	1693.7
125°	501.9	529.0	556.0	562.8	678.0	831.4	908.2	1047.4	1325.8	1534.7	1565.3
127.5°	535.0	562.3	589.6	596.4	696.2	829.2	895.8	1015.4	1254.4	1433.7	1459.6
130°	552.8	582.2	611.5	618.8	709.6	830.6	891.1	997.5	1210.4	1369.9	1393.8
132.5°	571.0	600.4	629.8	637.2	720.5	831.4	886.9	982.2	1172.7	1315.6	1337.0
135°	598.2	625.0	651.7	658.4	732.2	830.7	879.8	959.7	1119.3	1238.9	1257.4
137.5°	625.9	652.5	679.0	685.6	750.0	835.8	878.7	946.1	1081.1	1182.2	1197.3
140°	648.9	673.4	697.7	703.8	760.8	836.6	874.5	932.7	1049.4	1136.7	1150.9
142.5°	666.7	689.2	711.9	717.5	769.8	839.6	874.5	925.7	1028.1	1104.8	1117.0
145°	693.8	713.5	733.2	738.1	781.7	839.6	868.7	910.5	994.3	1057.0	1066.2
147.5°	721.0	740.1	759.3	764.1	799.0	845.5	868.7	901.6	967.5	1016.9	1024.5
150°	738.7	756.0	773.4	777.7	808.0	848.4	868.7	896.5	952.0	993.8	1000.0
152.5°	757.0	770.1	783.3	786.5	813.9	850.4	868.7	892.4	939.9	975.5	980.2
155°	784.2	793.9	803.6	806.0	826.9	854.7	868.7	887.6	925.3	953.7	956.7
157.5°	804.3	813.8	823.1	825.5	839.9	859.1	868.7	883.4	912.7	934.8	937.0
160°	817.9	825.2	832.6	834.4	845.8	861.0	868.7	881.3	906.4	925.3	926.5
162.5°	831.4	837.0	842.5	843.8	852.1	863.1	868.7	879.3	900.5	916.4	917.6
165°	846.2	851.2	856.2	857.4	861.1	866.2	868.7	876.3	891.5	902.9	904.1
167.5°	859.8	862.1	864.5	865.0	868.2	872.4	874.5	879.5	889.5	896.9	897.5
170°	868.7	871.0	873.3	873.9	874.1	874.4	874.5	879.5	889.5	896.9	896.9
172.5°	873.3	873.8	874.4	874.5	874.5	874.5	874.5	878.4	886.3	892.3	891.8
175°	879.8	879.8	879.8	879.8	878.0	875.6	874.5	877.0	882.0	885.8	885.8
177.5°	879.8	879.8	879.8	879.8	878.5	876.7	875.7	877.7	881.7	884.6	884.0
180°	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8



TEST NUMBER: P936880

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1177.2	1177.2
2.5°	1256.7	1249.1
5°	1616.3	1623.9
7.5°	2176.5	2172.7
10°	2706.5	2740.5
12.5°	3092.6	3100.1
15°	3327.2	3342.4
17.5°	3418.0	3421.9
20°	3421.9	3414.3
22.5°	3380.2	3372.7
25°	3331.0	3327.2
27.5°	3285.6	3289.4
30°	3266.7	3278.0
32.5°	3266.7	3285.6
35°	3274.2	3293.1
37.5°	3270.4	3293.1
40°	3255.3	3281.8
42.5°	3213.7	3232.6
45°	3149.3	3172.0
47.5°	3066.0	3081.2
50°	2960.0	2975.2
52.5°	2827.6	2831.4
55°	2668.6	2683.7
57.5°	2498.3	2502.0
60°	2309.0	2320.4
62.5°	2108.4	2108.4
65°	1896.4	1904.0
67.5°	1676.9	1695.8
70°	1453.5	1457.3
72.5°	1234.0	1234.0
75°	1006.9	1010.7
77.5°	791.1	791.1
80°	586.8	590.5
82.5°	405.0	412.6
85°	253.6	253.6
87.5°	117.4	106.0
90°	22.4	22.4
92.5°	89.9	72.0
95°	313.2	259.2
97.5°	750.6	647.8
100°	1081.5	959.0
102.5°	1407.0	1302.0
105°	1822.0	1765.6
107.5°	2093.8	2107.5
110°	2197.5	2256.3





TEST NUMBER: P936880

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2206.8	2297.1
115°	2148.3	2273.5
117.5°	2024.1	2163.0
120°	1924.2	2059.1
122.5°	1826.8	1959.9
125°	1687.9	1810.5
127.5°	1563.0	1666.4
130°	1489.4	1584.9
132.5°	1422.6	1508.1
135°	1331.1	1404.8
137.5°	1257.6	1318.0
140°	1207.2	1263.7
142.5°	1165.6	1214.1
145°	1102.9	1139.7
147.5°	1054.9	1085.4
150°	1024.6	1049.4
152.5°	998.8	1017.5
155°	969.1	981.5
157.5°	945.5	954.2
160°	931.6	936.6
162.5°	922.3	927.1
165°	909.2	914.1
167.5°	899.6	901.7
170°	896.9	896.9
172.5°	890.0	888.2
175°	885.8	885.8
177.5°	881.9	879.8
180°	879.8	879.8



TEST NUMBER: P936880

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-12-4000K

**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	6.48	7.51	7.33	8.38	9.47	19.68	20.70	20.52	21.57	22.67
	3H	7.20	8.12	8.06	9.01	10.12	21.53	22.46	22.39	23.34	24.46
	4H	7.51	8.38	8.38	9.27	10.40	22.19	23.06	23.06	23.95	25.08
	6H	7.77	8.57	8.65	9.47	10.61	22.63	23.44	23.52	24.33	25.48
	8H	7.84	8.61	8.73	9.52	10.66	22.76	23.53	23.65	24.44	25.59
	12H	7.86	8.60	8.76	9.50	10.67	22.84	23.57	23.74	24.48	25.65
4H	2H	13.73	14.60	14.60	15.49	16.62	19.97	20.84	20.84	21.73	22.86
	3H	15.31	16.04	16.20	16.96	18.11	22.03	22.77	22.92	23.69	24.83
	4H	15.41	16.08	16.31	16.99	18.17	22.81	23.48	23.71	24.40	25.57
	6H	15.43	16.01	16.34	16.95	18.12	23.37	23.95	24.28	24.88	26.06
	8H	15.41	15.95	16.33	16.89	18.07	23.53	24.08	24.45	25.01	26.20
	12H	15.38	15.87	16.31	16.82	18.01	23.64	24.13	24.58	25.08	26.27
8H	4H	16.87	17.41	17.79	18.35	19.54	22.89	23.43	23.80	24.36	25.55
	6H	17.12	17.57	18.07	18.55	19.73	23.53	23.98	24.47	24.95	26.14
	8H	17.14	17.54	18.10	18.51	19.71	23.75	24.15	24.71	25.12	26.32
	12H	17.12	17.47	18.08	18.43	19.68	23.91	24.26	24.87	25.22	26.47
12H	4H	17.03	17.52	17.96	18.47	19.66	22.85	23.34	23.79	24.29	25.48
	6H	17.38	17.78	18.34	18.75	19.95	23.51	23.91	24.47	24.88	26.08
	8H	17.46	17.81	18.42	18.77	20.02	23.75	24.11	24.71	25.06	26.32