

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: P938521

Luminaire Tested: SQ4-FB-150U-125D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

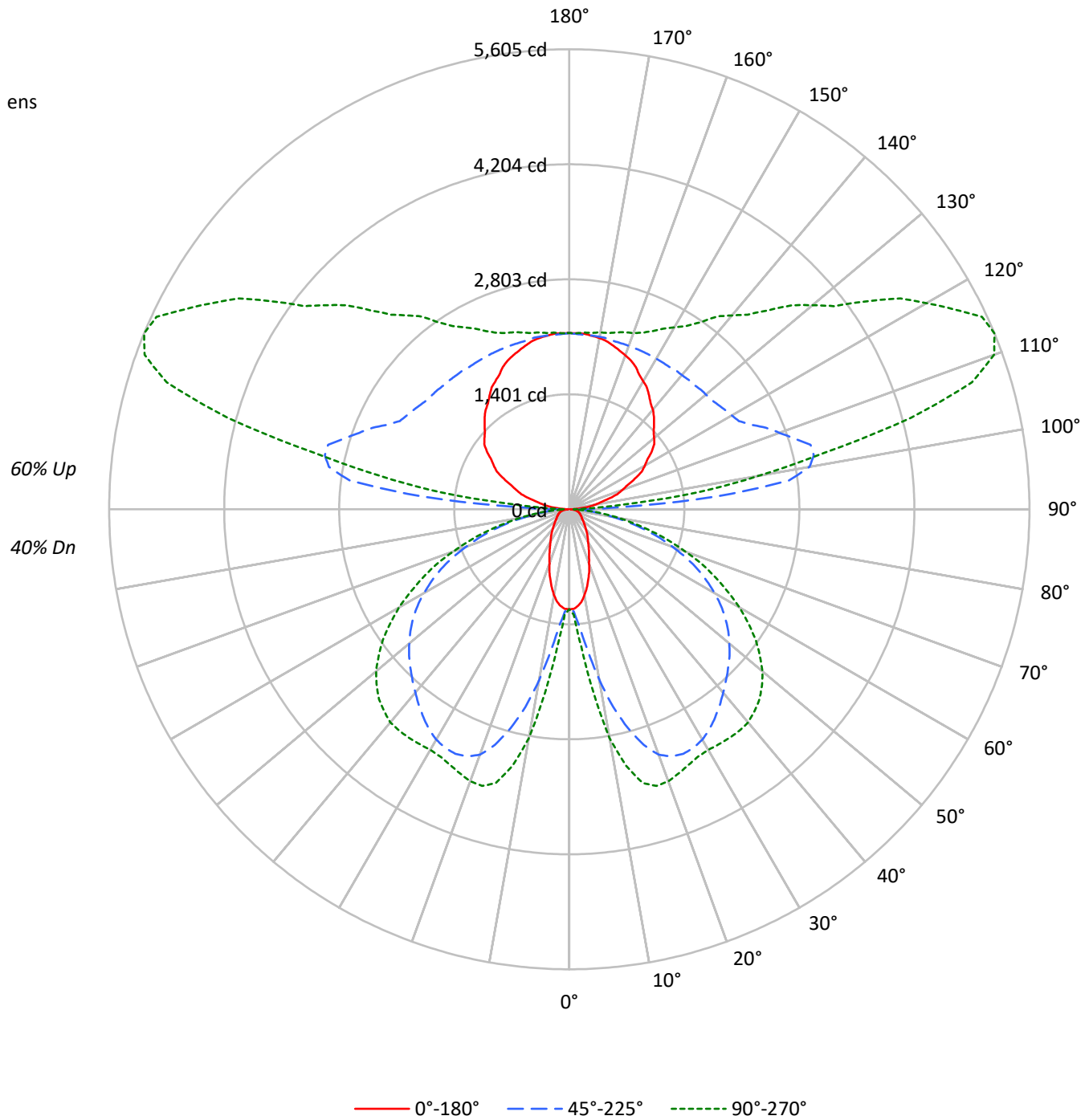
Test Method: LM-79-2019  
Report Number: P938521  
REPORT IS A COMBINATION OF REPORTS P933624 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-927-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23329.4 lumens  
Efficiency: N/A  
Efficacy: 93.5 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: General Diffuse  
  
Input Watts (W): 249.6  
Input Voltage (V): NR  
Input Current (Ain): 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

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### Luminous Intensity Polar Plot





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**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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

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

	0°	45°	90°
0°	3761	3761	3761
5°	3675	4347	5054
10°	3335	6339	8379
15°	2835	8283	10118
20°	2309	9601	10312
25°	1927	10049	10102
30°	1626	10116	10083
35°	1438	9950	10344
40°	1254	9735	10614
45°	1136	9578	10655
50°	1043	9437	10479
55°	1000	9230	10014
60°	1025	8828	9280
65°	1068	8217	8273
70°	1141	7171	6989
75°	1268	5852	5454
80°	1396	4063	3675
85°	1267	2159	1881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10655 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.3	0.7
10°-20°	697.0	3.0
20°-30°	1219.1	5.2
30°-40°	1569.4	6.7
40°-50°	1752.9	7.5
50°-60°	1678.9	7.2
60°-70°	1330.5	5.7
70°-80°	782.4	3.4
80°-90°	225.5	1.0
90°-100°	1046.4	4.5
100°-110°	2751.1	11.8
110°-120°	2852.6	12.2
120°-130°	2288.1	9.8
130°-140°	1795.4	7.7
140°-150°	1378.0	5.9
150°-160°	992.4	4.3
160°-170°	607.2	2.6
170°-180°	205.1	0.9
0°-30°	2073.3	8.9
0°-40°	3642.7	15.6
0°-60°	7074.5	30.3
0°-90°	9413.0	40.3
90°-120°	6650.2	28.5
90°-150°	12111.7	51.9
90°-180°	13916.0	59.6
0°-180°	23329.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1216	1216	1216	1216	1216	
5°	1184	1270	1431	1618	1677	109
15°	887	1638	2760	3346	3452	247
25°	567	1857	3288	3432	3436	261
35°	383	1775	3096	3272	3401	239
45°	262	1415	2736	3135	3276	203
55°	188	899	2322	2697	2772	171
65°	148	477	1724	1939	1966	147
75°	109	293	946	1040	1044	115
85°	39	90	234	258	262	41
90°	14	40	110	55	55	15
95°	138	542	1802	929	632	154
105°	496	751	3041	4618	4308	525
115°	880	1069	2436	4860	5547	869
125°	1225	1373	2216	3744	4417	1087
135°	1460	1606	2147	3023	3428	1129
145°	1693	1801	2119	2579	2781	1061
155°	1913	1967	2119	2327	2394	879
165°	2065	2092	2119	2203	2230	583
175°	2147	2147	2134	2161	2161	204
180°	2147	2147	2147	2147	2147	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8
2.5°	1215.8	1215.8	1223.5	1227.5	1235.2	1239.2	1247.0	1254.8	1278.3	1282.2	1290.0
5°	1184.4	1200.0	1250.9	1270.4	1325.2	1399.5	1430.7	1481.6	1587.0	1618.4	1637.9
7.5°	1137.5	1172.7	1297.8	1329.1	1465.9	1661.4	1743.4	1852.9	2021.0	2103.1	2169.6
10°	1063.3	1137.5	1360.4	1434.6	1657.4	1954.5	2107.0	2259.4	2513.5	2626.9	2669.9
12.5°	981.2	1102.3	1426.8	1528.4	1849.0	2282.9	2466.6	2634.7	2924.0	3076.5	3099.9
15°	887.3	1051.5	1489.3	1637.9	2052.3	2556.6	2759.8	2967.0	3236.7	3346.2	3373.5
17.5°	805.3	1012.5	1548.0	1704.3	2208.6	2802.8	3010.0	3181.9	3400.9	3475.2	3494.7
20°	703.6	949.9	1587.0	1790.3	2372.8	2982.6	3181.9	3314.8	3463.5	3510.4	3518.1
22.5°	629.3	883.4	1610.5	1821.6	2482.2	3092.1	3260.2	3365.7	3467.3	3482.9	3486.9
25°	566.8	809.2	1606.6	1856.8	2576.0	3158.5	3287.5	3365.7	3424.3	3432.1	3432.1
27.5°	508.2	727.1	1591.0	1864.6	2646.4	3174.2	3275.8	3330.5	3357.9	3373.5	3373.5
30°	457.4	648.9	1551.9	1849.0	2677.7	3158.5	3240.6	3268.0	3295.4	3318.8	3330.5
32.5°	418.3	574.7	1493.3	1817.7	2681.6	3119.4	3178.1	3193.7	3232.8	3287.5	3307.1
35°	383.1	500.3	1426.8	1774.7	2658.2	3056.9	3095.9	3111.6	3189.8	3271.9	3299.2
37.5°	347.9	445.6	1340.8	1700.5	2623.0	2982.6	3010.0	3037.3	3158.5	3256.3	3287.5
40°	312.7	398.7	1239.2	1618.4	2568.3	2892.7	2916.1	2959.2	3119.4	3232.8	3264.0
42.5°	285.4	359.7	1129.7	1532.4	2497.9	2791.1	2826.3	2888.8	3072.5	3193.7	3228.9
45°	261.9	320.6	1012.5	1415.1	2407.9	2685.5	2736.3	2822.4	3017.8	3135.1	3166.3
47.5°	238.5	293.2	891.3	1293.9	2310.2	2580.0	2646.4	2744.1	2943.6	3056.9	3084.2
50°	218.9	265.8	770.1	1164.9	2204.7	2466.6	2544.8	2646.4	2849.7	2955.3	2990.4
52.5°	203.3	242.4	656.7	1035.9	2083.5	2349.3	2439.3	2544.8	2736.3	2838.0	2861.4
55°	187.6	222.8	559.0	899.1	1958.4	2224.2	2322.0	2423.7	2611.2	2697.2	2712.9
57.5°	179.8	207.2	476.9	770.1	1825.5	2083.5	2193.0	2286.8	2462.7	2529.1	2544.8
60°	168.1	195.4	414.3	660.7	1680.9	1950.6	2044.4	2138.3	2286.8	2341.5	2353.3
62.5°	156.4	187.6	367.4	555.1	1532.4	1794.3	1888.0	1974.0	2099.2	2138.3	2153.9
65°	148.5	179.8	332.3	476.9	1379.9	1630.1	1723.9	1798.2	1899.8	1938.9	1946.7
67.5°	140.8	172.0	304.9	410.5	1227.5	1465.9	1536.2	1606.6	1684.8	1723.9	1727.8
70°	129.0	164.2	281.4	363.5	1071.1	1278.3	1336.9	1411.2	1473.7	1493.3	1505.0
72.5°	121.2	152.5	265.8	328.3	910.8	1098.5	1153.2	1196.2	1250.9	1270.4	1270.4
75°	109.4	136.8	250.2	293.2	746.6	899.1	946.0	989.0	1032.0	1039.8	1028.1
77.5°	97.7	121.2	215.0	246.2	582.4	711.5	750.5	774.0	809.2	817.0	820.9
80°	82.1	105.6	168.1	191.6	422.2	523.8	551.2	570.7	602.0	602.0	609.8
82.5°	62.5	82.1	121.2	136.8	285.4	359.7	383.1	394.8	414.3	414.3	414.3
85°	39.1	50.8	78.2	89.9	172.0	218.9	234.5	238.5	254.1	258.0	258.0
87.5°	19.6	27.3	50.8	54.7	89.9	113.3	113.3	121.2	121.2	117.3	113.3
90°	14.4	25.9	37.5	40.3	63.4	94.1	109.5	97.3	73.0	54.7	54.7
92.5°	57.6	155.5	253.6	278.0	390.9	541.4	616.6	540.4	388.0	273.7	262.9
95°	138.3	317.5	496.9	541.7	962.0	1522.3	1802.4	1608.4	1220.4	929.3	896.4
97.5°	239.2	397.3	555.5	595.1	1295.8	2230.0	2697.1	2574.5	2329.2	2145.3	2082.5
100°	316.9	460.4	603.8	639.7	1417.3	2453.9	2972.3	2981.2	2999.2	3012.6	2937.9
102.5°	383.2	517.1	650.9	684.4	1472.9	2524.4	3050.1	3206.4	3518.8	3753.2	3689.1
105°	495.6	609.0	722.3	750.7	1514.3	2532.4	3041.4	3391.7	4092.2	4617.6	4583.2
107.5°	610.9	716.6	822.2	848.6	1521.9	2419.6	2868.6	3357.1	4334.3	5067.1	5075.5
110°	688.7	784.1	879.5	903.4	1510.4	2319.8	2724.5	3270.7	4363.1	5182.4	5218.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	765.1	856.0	946.9	969.7	1510.9	2232.5	2593.4	3152.4	4270.4	5109.0	5164.0
115°	880.3	964.2	1048.1	1069.1	1524.8	2132.5	2436.4	2974.9	4051.9	4859.7	4936.1
117.5°	994.1	1070.3	1146.5	1165.5	1553.1	2069.8	2328.2	2814.3	3786.3	4515.4	4600.1
120°	1060.4	1132.1	1203.8	1221.8	1576.2	2048.7	2285.1	2729.1	3617.2	4283.4	4365.7
122.5°	1125.2	1197.6	1270.0	1288.1	1609.4	2037.7	2251.9	2651.8	3451.6	4051.4	4132.6
125°	1224.7	1290.6	1356.6	1373.1	1654.0	2028.6	2215.9	2555.6	3235.0	3744.5	3819.3
127.5°	1305.3	1371.9	1438.5	1455.1	1698.6	2023.3	2185.6	2477.3	3060.7	3498.2	3561.2
130°	1348.6	1420.3	1492.0	1509.9	1731.3	2026.5	2174.1	2433.7	2953.1	3342.6	3400.9
132.5°	1393.2	1464.9	1536.6	1554.6	1757.7	2028.6	2164.0	2396.5	2861.4	3210.1	3262.3
135°	1459.5	1524.8	1590.1	1606.5	1786.6	2026.7	2146.8	2341.4	2730.7	3022.7	3067.7
137.5°	1527.2	1591.9	1656.6	1672.7	1829.8	2039.1	2143.8	2308.4	2637.6	2884.4	2921.2
140°	1583.4	1642.9	1702.5	1717.4	1856.2	2041.2	2133.7	2275.9	2560.2	2773.5	2807.9
142.5°	1626.6	1681.7	1736.7	1750.5	1878.3	2048.6	2133.7	2258.6	2508.4	2695.7	2725.3
145°	1692.9	1741.0	1788.9	1801.0	1907.1	2048.6	2119.3	2221.5	2425.7	2579.0	2601.4
147.5°	1759.1	1805.9	1852.6	1864.3	1949.3	2062.7	2119.3	2199.7	2360.4	2481.0	2499.6
150°	1802.4	1844.7	1887.0	1897.5	1971.4	2070.1	2119.3	2187.3	2323.0	2424.8	2439.8
152.5°	1847.1	1879.1	1911.1	1919.1	1985.8	2074.8	2119.3	2177.3	2293.2	2380.1	2391.5
155°	1913.4	1937.1	1960.7	1966.7	2017.6	2085.4	2119.3	2165.5	2257.7	2326.9	2334.4
157.5°	1962.3	1985.4	2008.4	2014.2	2049.2	2095.9	2119.3	2155.2	2226.9	2280.7	2286.1
160°	1995.5	2013.4	2031.3	2035.8	2063.7	2100.8	2119.3	2150.1	2211.5	2257.6	2260.7
162.5°	2028.6	2042.0	2055.4	2058.8	2079.0	2105.9	2119.3	2145.3	2197.2	2236.1	2238.9
165°	2064.6	2076.8	2088.9	2092.0	2101.1	2113.3	2119.3	2137.9	2175.0	2202.9	2206.0
167.5°	2097.8	2103.6	2109.3	2110.7	2118.4	2128.7	2133.7	2145.9	2170.2	2188.5	2189.8
170°	2119.3	2125.1	2130.9	2132.4	2132.8	2133.4	2133.7	2145.9	2170.2	2188.5	2188.5
172.5°	2130.9	2132.1	2133.4	2133.7	2133.7	2133.7	2133.7	2143.4	2162.6	2177.0	2175.9
175°	2146.8	2146.8	2146.8	2146.8	2142.4	2136.7	2133.7	2139.8	2152.0	2161.2	2161.2
177.5°	2146.8	2146.8	2146.8	2146.8	2143.4	2138.9	2136.7	2141.4	2151.1	2158.2	2156.9
180°	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8	2146.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1215.8	1215.8
2.5°	1297.8	1290.0
5°	1669.2	1677.0
7.5°	2247.7	2243.8
10°	2794.9	2830.1
12.5°	3193.7	3201.5
15°	3436.0	3451.7
17.5°	3529.9	3533.8
20°	3533.8	3526.0
22.5°	3490.8	3482.9
25°	3440.0	3436.0
27.5°	3393.1	3397.0
30°	3373.5	3385.2
32.5°	3373.5	3393.1
35°	3381.3	3400.9
37.5°	3377.5	3400.9
40°	3361.8	3389.2
42.5°	3318.8	3338.3
45°	3252.3	3275.8
47.5°	3166.3	3181.9
50°	3056.9	3072.5
52.5°	2920.1	2924.0
55°	2755.9	2771.5
57.5°	2580.0	2583.9
60°	2384.5	2396.2
62.5°	2177.3	2177.3
65°	1958.4	1966.3
67.5°	1731.7	1751.3
70°	1501.1	1505.0
72.5°	1274.4	1274.4
75°	1039.8	1043.7
77.5°	817.0	817.0
80°	605.9	609.8
82.5°	418.3	426.1
85°	261.9	261.9
87.5°	121.2	109.4
90°	54.7	54.7
92.5°	219.3	175.8
95°	764.4	632.5
97.5°	1831.5	1580.5
100°	2638.9	2339.8
102.5°	3433.0	3176.9
105°	4445.6	4307.9
107.5°	5108.8	5142.1
110°	5361.7	5505.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5384.3	5604.6
115°	5241.5	5546.9
117.5°	4938.8	5277.5
120°	4694.8	5023.9
122.5°	4457.3	4781.9
125°	4118.3	4417.4
127.5°	3813.6	4065.8
130°	3633.9	3867.0
132.5°	3470.9	3679.7
135°	3247.6	3427.6
137.5°	3068.5	3215.8
140°	2945.6	3083.2
142.5°	2843.8	2962.2
145°	2691.1	2780.7
147.5°	2573.9	2648.1
150°	2500.0	2560.2
152.5°	2437.0	2482.4
155°	2364.4	2394.5
157.5°	2307.2	2328.2
160°	2272.9	2285.1
162.5°	2250.5	2262.0
165°	2218.1	2230.3
167.5°	2194.9	2200.0
170°	2188.5	2188.5
172.5°	2171.4	2166.9
175°	2161.2	2161.2
177.5°	2151.8	2146.8
180°	2146.8	2146.8



TEST NUMBER: P938521  
 CATALOG NUMBER: SQ4-FB-150U-125D-927-1D-UNV-STD-W-12

**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	4.66	5.47	5.69	6.51	7.91	17.85	18.66	18.88	19.70	21.10
	3H	5.36	6.09	6.40	7.14	8.56	19.69	20.42	20.73	21.47	22.89
	4H	5.66	6.35	6.71	7.40	8.83	20.34	21.03	21.39	22.08	23.51
	6H	5.90	6.54	6.97	7.60	9.04	20.77	21.41	21.83	22.46	23.90
	8H	5.97	6.58	7.04	7.65	9.08	20.89	21.50	21.96	22.57	24.01
	12H	5.99	6.56	7.06	7.63	9.09	20.96	21.54	22.03	22.60	24.06
4H	2H	11.88	12.57	12.93	13.62	15.05	18.12	18.81	19.18	19.86	21.29
	3H	13.44	14.02	14.50	15.10	16.54	20.17	20.74	21.23	21.82	23.26
	4H	13.53	14.06	14.60	15.13	16.59	20.93	21.46	22.01	22.53	23.99
	6H	13.54	14.00	14.62	15.09	16.54	21.47	21.93	22.55	23.02	24.48
	8H	13.51	13.94	14.60	15.03	16.50	21.64	22.06	22.72	23.15	24.62
	12H	13.47	13.85	14.57	14.95	16.43	21.73	22.12	22.83	23.22	24.69
8H	4H	14.98	15.40	16.06	16.49	17.96	20.99	21.42	22.07	22.50	23.97
	6H	15.21	15.57	16.32	16.70	18.16	21.62	21.97	22.72	23.10	24.57
	8H	15.23	15.54	16.34	16.65	18.14	21.84	22.15	22.95	23.26	24.75
	12H	15.20	15.47	16.31	16.58	18.10	21.99	22.26	23.10	23.37	24.89
12H	4H	15.12	15.50	16.22	16.60	18.08	20.94	21.33	22.04	22.42	23.90
	6H	15.47	15.78	16.59	16.89	18.38	21.60	21.91	22.71	23.02	24.51
	8H	15.54	15.81	16.66	16.92	18.45	21.83	22.11	22.95	23.21	24.74