

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: P938549

Luminaire Tested: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938549
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-930-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

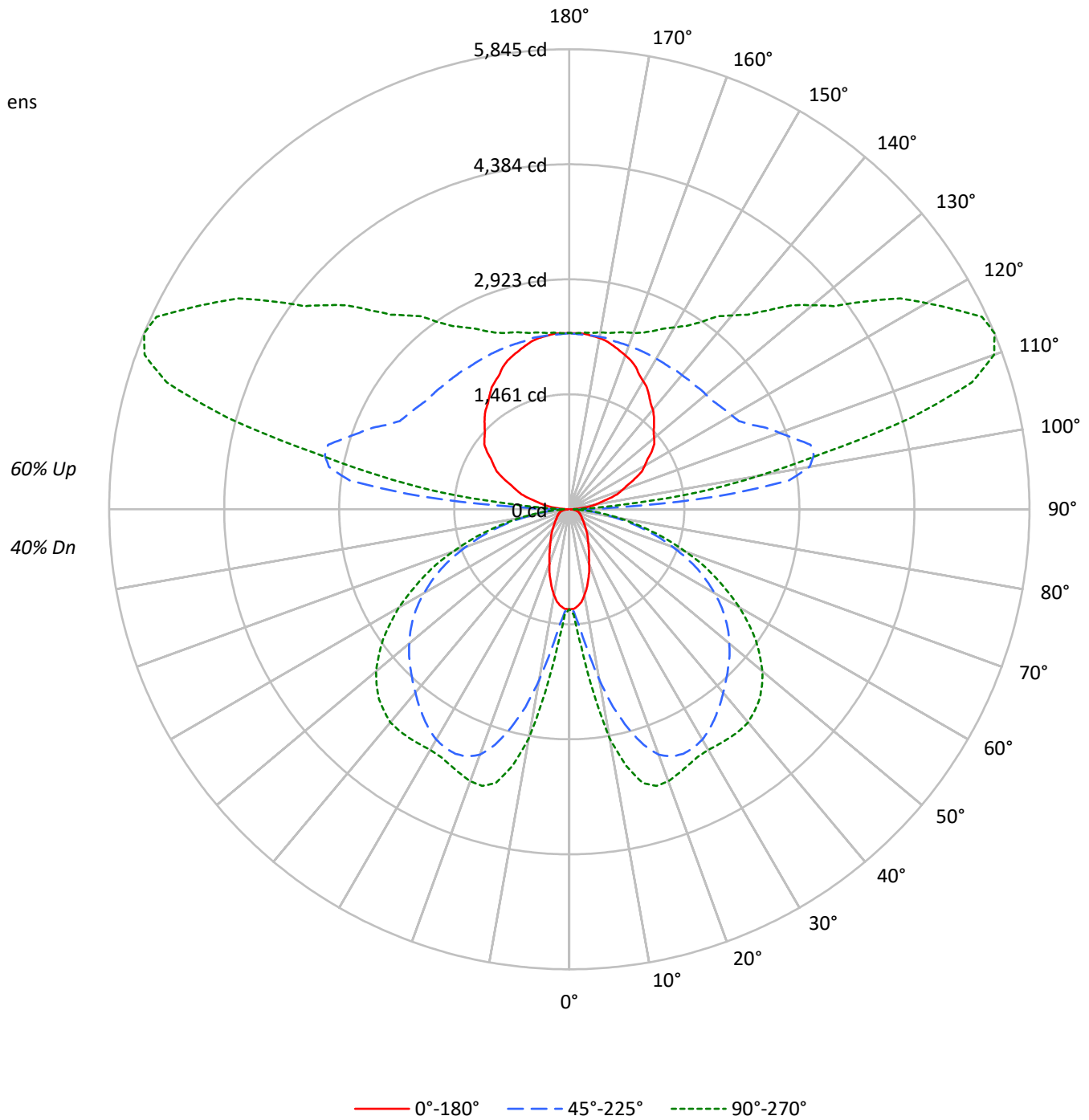
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24329.3 lumens
Efficiency: N/A
Efficacy: 97.5 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 (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: P938549
CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P938549

CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

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°	3922	3922	3922
5°	3832	4534	5271
10°	3478	6610	8738
15°	2957	8638	10552
20°	2408	10012	10754
25°	2010	10480	10535
30°	1695	10549	10515
35°	1500	10377	10787
40°	1308	10152	11068
45°	1185	9988	11112
50°	1088	9841	10928
55°	1043	9625	10443
60°	1069	9207	9678
65°	1114	8569	8627
70°	1189	7478	7289
75°	1322	6103	5688
80°	1456	4237	3833
85°	1322	2252	1961

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11112 cd/sqm



TEST NUMBER: P938549

CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.0	0.7
10°-20°	726.8	3.0
20°-30°	1271.4	5.2
30°-40°	1636.6	6.7
40°-50°	1828.0	7.5
50°-60°	1750.8	7.2
60°-70°	1387.6	5.7
70°-80°	815.9	3.4
80°-90°	235.2	1.0
90°-100°	1091.3	4.5
100°-110°	2869.0	11.8
110°-120°	2974.9	12.2
120°-130°	2386.2	9.8
130°-140°	1872.3	7.7
140°-150°	1437.1	5.9
150°-160°	1034.9	4.3
160°-170°	633.2	2.6
170°-180°	213.9	0.9
0°-30°	2162.2	8.9
0°-40°	3798.8	15.6
0°-60°	7377.7	30.3
0°-90°	9816.4	40.3
90°-120°	6935.2	28.5
90°-150°	12630.8	51.9
90°-180°	14513.0	59.7
0°-180°	24329.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1268	1268	1268	1268	1268	
5°	1235	1325	1492	1688	1749	114
15°	925	1708	2878	3490	3600	258
25°	591	1936	3428	3579	3583	272
35°	400	1851	3229	3412	3547	249
45°	273	1476	2854	3269	3416	211
55°	196	938	2422	2813	2890	178
65°	155	497	1798	2022	2050	154
75°	114	306	987	1084	1088	119
85°	41	94	245	269	273	43
90°	15	42	114	57	57	15
95°	144	565	1880	969	660	160
105°	517	783	3172	4816	4492	548
115°	918	1115	2541	5068	5785	907
125°	1277	1432	2311	3905	4607	1134
135°	1522	1675	2239	3152	3574	1178
145°	1766	1878	2210	2690	2900	1106
155°	1995	2051	2210	2427	2497	917
165°	2153	2182	2210	2297	2326	608
175°	2239	2239	2225	2254	2254	213
180°	2239	2239	2239	2239	2239	



TEST NUMBER: P938549

CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9
2.5°	1267.9	1267.9	1276.0	1280.1	1288.2	1292.3	1300.5	1308.6	1333.1	1337.2	1345.3
5°	1235.2	1251.5	1304.5	1324.9	1382.0	1459.5	1492.1	1545.1	1655.1	1687.7	1708.1
7.5°	1186.3	1223.0	1353.5	1386.1	1528.8	1732.6	1818.2	1932.3	2107.6	2193.2	2262.5
10°	1108.9	1186.3	1418.7	1496.1	1728.5	2038.3	2197.2	2356.2	2621.2	2739.4	2784.3
12.5°	1023.3	1149.6	1488.0	1594.0	1928.2	2380.7	2572.3	2747.6	3049.3	3208.3	3232.7
15°	925.4	1096.6	1553.2	1708.1	2140.2	2666.1	2878.0	3094.1	3375.4	3489.6	3518.1
17.5°	839.8	1055.9	1614.4	1777.4	2303.2	2922.9	3139.0	3318.3	3546.6	3624.1	3644.5
20°	733.8	990.6	1655.1	1867.1	2474.5	3110.4	3318.3	3456.9	3611.9	3660.8	3668.9
22.5°	656.3	921.3	1679.6	1899.7	2588.6	3224.6	3399.9	3509.9	3615.9	3632.2	3636.3
25°	591.1	843.9	1675.5	1936.4	2686.4	3293.9	3428.4	3509.9	3571.1	3579.2	3579.2
27.5°	530.0	758.3	1659.2	1944.5	2759.8	3310.2	3416.2	3473.2	3501.8	3518.1	3518.1
30°	477.0	676.7	1618.4	1928.2	2792.4	3293.9	3379.5	3408.0	3436.6	3461.0	3473.2
32.5°	436.2	599.3	1557.3	1895.6	2796.5	3253.1	3314.3	3330.6	3371.3	3428.4	3448.8
35°	399.5	521.8	1488.0	1850.8	2772.1	3187.9	3228.6	3245.0	3326.5	3412.1	3440.6
37.5°	362.8	464.7	1398.3	1773.3	2735.4	3110.4	3139.0	3167.5	3293.9	3395.8	3428.4
40°	326.1	415.8	1292.3	1687.7	2678.3	3016.7	3041.1	3086.0	3253.1	3371.3	3403.9
42.5°	297.6	375.1	1178.2	1598.1	2604.9	2910.7	2947.4	3012.6	3204.2	3330.6	3367.3
45°	273.1	334.3	1055.9	1475.8	2511.1	2800.6	2853.6	2943.3	3147.1	3269.4	3302.0
47.5°	248.7	305.8	929.5	1349.4	2409.2	2690.5	2759.8	2861.7	3069.7	3187.9	3216.4
50°	228.3	277.2	803.1	1214.9	2299.2	2572.3	2653.8	2759.8	2971.8	3081.9	3118.6
52.5°	212.0	252.8	684.9	1080.3	2172.8	2450.0	2543.8	2653.8	2853.6	2959.6	2984.0
55°	195.7	232.4	583.0	937.6	2042.4	2319.5	2421.5	2527.5	2723.1	2812.8	2829.1
57.5°	187.5	216.1	497.4	803.1	1903.8	2172.8	2286.9	2384.8	2568.2	2637.5	2653.8
60°	175.3	203.8	432.1	689.0	1752.9	2034.2	2132.0	2229.9	2384.8	2441.8	2454.1
62.5°	163.1	195.7	383.2	578.9	1598.1	1871.2	1969.0	2058.7	2189.1	2229.9	2246.2
65°	154.9	187.5	346.5	497.4	1439.1	1700.0	1797.8	1875.2	1981.2	2022.0	2030.1
67.5°	146.8	179.4	318.0	428.1	1280.1	1528.8	1602.1	1675.5	1757.0	1797.8	1801.9
70°	134.5	171.2	293.5	379.1	1117.0	1333.1	1394.2	1471.7	1536.9	1557.3	1569.5
72.5°	126.4	159.0	277.2	342.4	949.9	1145.6	1202.6	1247.5	1304.5	1324.9	1324.9
75°	114.1	142.7	260.9	305.8	778.6	937.6	986.6	1031.4	1076.2	1084.4	1072.2
77.5°	101.9	126.4	224.2	256.8	607.4	742.0	782.7	807.2	843.9	852.0	856.1
80°	85.6	110.1	175.3	199.8	440.3	546.3	574.8	595.2	627.8	627.8	636.0
82.5°	65.2	85.6	126.4	142.7	297.6	375.1	399.5	411.7	432.1	432.1	432.1
85°	40.8	53.0	81.5	93.8	179.4	228.3	244.6	248.7	265.0	269.1	269.1
87.5°	20.4	28.5	53.0	57.1	93.8	118.2	118.2	126.4	126.4	122.3	118.2
90°	15.0	27.1	39.1	42.1	66.1	98.1	114.2	101.5	76.1	57.1	57.1
92.5°	60.1	162.2	264.4	290.0	407.7	564.6	643.0	563.5	404.6	285.5	274.1
95°	144.2	331.2	518.2	564.9	1003.2	1587.5	1879.7	1677.3	1272.7	969.1	934.8
97.5°	249.4	414.3	579.3	620.6	1351.3	2325.6	2812.7	2684.8	2429.1	2237.2	2171.8
100°	330.5	480.1	629.7	667.1	1478.0	2559.1	3099.7	3109.0	3127.7	3141.7	3063.8
102.5°	399.7	539.2	678.8	713.7	1536.1	2632.6	3180.8	3343.8	3669.6	3914.1	3847.3
105°	516.9	635.1	753.3	782.8	1579.2	2640.9	3171.8	3537.1	4267.6	4815.5	4779.6
107.5°	637.1	747.3	857.4	885.0	1587.1	2523.3	2991.5	3501.0	4520.0	5284.3	5293.0
110°	718.2	817.7	917.2	942.1	1575.2	2419.2	2841.3	3410.9	4550.1	5404.5	5441.9



TEST NUMBER: P938549

CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	797.9	892.7	987.5	1011.2	1575.6	2328.2	2704.5	3287.5	4453.4	5327.9	5385.3
115°	918.1	1005.5	1093.0	1114.9	1590.2	2223.9	2540.8	3102.4	4225.5	5068.0	5147.6
117.5°	1036.8	1116.2	1195.7	1215.5	1619.7	2158.5	2428.0	2934.9	3948.6	4708.9	4797.2
120°	1105.8	1180.7	1255.4	1274.1	1643.7	2136.5	2383.0	2846.1	3772.3	4466.9	4552.8
122.5°	1173.4	1248.9	1324.4	1343.3	1678.4	2125.1	2348.5	2765.5	3599.5	4225.1	4309.7
125°	1277.2	1345.9	1414.7	1431.9	1724.9	2115.6	2310.9	2665.2	3373.6	3905.0	3983.0
127.5°	1361.2	1430.7	1500.2	1517.5	1771.4	2110.0	2279.3	2583.5	3191.8	3648.1	3713.9
130°	1406.4	1481.1	1555.9	1574.6	1805.5	2113.3	2267.3	2538.0	3079.7	3485.8	3546.6
132.5°	1452.9	1527.7	1602.5	1621.2	1833.0	2115.5	2256.8	2499.2	2984.0	3347.6	3402.1
135°	1522.0	1590.1	1658.3	1675.3	1863.1	2113.6	2238.8	2441.8	2847.8	3152.3	3199.2
137.5°	1592.7	1660.1	1727.6	1744.4	1908.2	2126.5	2235.7	2407.3	2750.6	3008.0	3046.4
140°	1651.3	1713.4	1775.5	1791.0	1935.7	2128.7	2225.2	2373.4	2670.0	2892.3	2928.2
142.5°	1696.3	1753.8	1811.2	1825.5	1958.8	2136.4	2225.2	2355.4	2615.9	2811.2	2842.1
145°	1765.5	1815.6	1865.6	1878.1	1988.8	2136.4	2210.2	2316.7	2529.7	2689.5	2712.9
147.5°	1834.5	1883.3	1932.0	1944.2	2032.9	2151.1	2210.2	2294.0	2461.6	2587.3	2606.7
150°	1879.7	1923.7	1967.8	1978.8	2055.9	2158.8	2210.2	2281.0	2422.6	2528.7	2544.4
152.5°	1926.2	1959.6	1993.0	2001.3	2070.9	2163.8	2210.2	2270.6	2391.5	2482.2	2494.0
155°	1995.4	2020.1	2044.8	2050.9	2104.0	2174.8	2210.2	2258.3	2354.5	2426.6	2434.5
157.5°	2046.4	2070.5	2094.5	2100.5	2137.0	2185.8	2210.2	2247.6	2322.4	2378.5	2384.0
160°	2081.0	2099.7	2118.4	2123.1	2152.1	2190.8	2210.2	2242.2	2306.3	2354.4	2357.6
162.5°	2115.5	2129.6	2143.5	2147.1	2168.1	2196.1	2210.2	2237.2	2291.4	2331.9	2334.9
165°	2153.1	2165.8	2178.5	2181.7	2191.1	2203.8	2210.2	2229.5	2268.2	2297.3	2300.5
167.5°	2187.7	2193.7	2199.7	2201.2	2209.2	2219.9	2225.2	2237.9	2263.3	2282.3	2283.7
170°	2210.2	2216.2	2222.2	2223.7	2224.2	2224.9	2225.2	2237.9	2263.3	2282.3	2282.3
172.5°	2222.2	2223.5	2224.9	2225.2	2225.2	2225.2	2225.2	2235.2	2255.3	2270.3	2269.1
175°	2238.8	2238.8	2238.8	2238.8	2234.3	2228.2	2225.2	2231.5	2244.2	2253.8	2253.8
177.5°	2238.8	2238.8	2238.8	2238.8	2235.2	2230.6	2228.2	2233.2	2243.3	2250.7	2249.4
180°	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8



TEST NUMBER: P938549

CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1267.9	1267.9
2.5°	1353.5	1345.3
5°	1740.7	1748.9
7.5°	2344.0	2339.9
10°	2914.7	2951.4
12.5°	3330.6	3338.7
15°	3583.3	3599.6
17.5°	3681.2	3685.2
20°	3685.2	3677.1
22.5°	3640.4	3632.2
25°	3587.4	3583.3
27.5°	3538.5	3542.6
30°	3518.1	3530.3
32.5°	3518.1	3538.5
35°	3526.2	3546.6
37.5°	3522.2	3546.6
40°	3505.9	3534.4
42.5°	3461.0	3481.4
45°	3391.7	3416.2
47.5°	3302.0	3318.3
50°	3187.9	3204.2
52.5°	3045.2	3049.3
55°	2874.0	2890.3
57.5°	2690.5	2694.6
60°	2486.7	2498.9
62.5°	2270.6	2270.6
65°	2042.4	2050.5
67.5°	1805.9	1826.3
70°	1565.4	1569.5
72.5°	1329.0	1329.0
75°	1084.4	1088.5
77.5°	852.0	852.0
80°	631.9	636.0
82.5°	436.2	444.4
85°	273.1	273.1
87.5°	126.4	114.1
90°	57.1	57.1
92.5°	228.7	183.3
95°	797.1	659.6
97.5°	1910.0	1648.2
100°	2752.0	2440.1
102.5°	3580.2	3313.0
105°	4636.1	4492.5
107.5°	5327.7	5362.4
110°	5591.5	5741.1



TEST NUMBER: P938549

CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5615.1	5844.8
115°	5466.1	5784.7
117.5°	5150.4	5503.7
120°	4896.0	5239.3
122.5°	4648.3	4986.9
125°	4294.8	4606.7
127.5°	3977.0	4240.1
130°	3789.7	4032.7
132.5°	3619.7	3837.4
135°	3386.8	3574.5
137.5°	3200.0	3353.6
140°	3071.8	3215.4
142.5°	2965.6	3089.1
145°	2806.4	2899.9
147.5°	2684.2	2761.6
150°	2607.2	2670.0
152.5°	2541.4	2588.8
155°	2465.8	2497.2
157.5°	2406.0	2428.0
160°	2370.3	2383.0
162.5°	2346.9	2359.0
165°	2313.2	2325.9
167.5°	2289.0	2294.3
170°	2282.3	2282.3
172.5°	2264.5	2259.8
175°	2253.8	2253.8
177.5°	2244.1	2238.8
180°	2238.8	2238.8



TEST NUMBER: P938549
 CATALOG NUMBER: SQ4-FB-150U-125D-930-1D-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	4.81	5.62	5.84	6.66	8.06	18.00	18.81	19.03	19.85	21.25
	3H	5.51	6.24	6.55	7.28	8.70	19.84	20.57	20.88	21.62	23.03
	4H	5.80	6.49	6.85	7.55	8.97	20.48	21.18	21.54	22.23	23.65
	6H	6.05	6.69	7.11	7.74	9.18	20.92	21.55	21.98	22.61	24.05
	8H	6.12	6.72	7.18	7.80	9.23	21.04	21.64	22.10	22.72	24.15
	12H	6.13	6.71	7.20	7.78	9.23	21.11	21.68	22.18	22.75	24.21
4H	2H	12.02	12.71	13.08	13.77	15.19	18.27	18.96	19.32	20.01	21.43
	3H	13.59	14.16	14.65	15.24	16.68	20.31	20.89	21.38	21.97	23.41
	4H	13.68	14.21	14.75	15.28	16.74	21.08	21.61	22.15	22.68	24.14
	6H	13.69	14.14	14.77	15.24	16.69	21.62	22.08	22.70	23.17	24.62
	8H	13.66	14.09	14.74	15.17	16.64	21.78	22.21	22.86	23.30	24.77
	12H	13.61	14.00	14.71	15.10	16.58	21.88	22.26	22.98	23.36	24.84
8H	4H	15.12	15.55	16.20	16.63	18.11	21.13	21.56	22.22	22.65	24.12
	6H	15.36	15.71	16.47	16.84	18.31	21.77	22.12	22.87	23.25	24.72
	8H	15.38	15.69	16.49	16.80	18.29	21.99	22.30	23.10	23.41	24.90
	12H	15.34	15.62	16.46	16.72	18.25	22.13	22.41	23.25	23.51	25.04
12H	4H	15.26	15.65	16.36	16.75	18.23	21.08	21.47	22.18	22.57	24.05
	6H	15.62	15.93	16.73	17.04	18.53	21.75	22.06	22.86	23.17	24.66
	8H	15.69	15.96	16.80	17.07	18.59	21.98	22.25	23.09	23.36	24.88