

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: P938566

Luminaire Tested: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938566
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

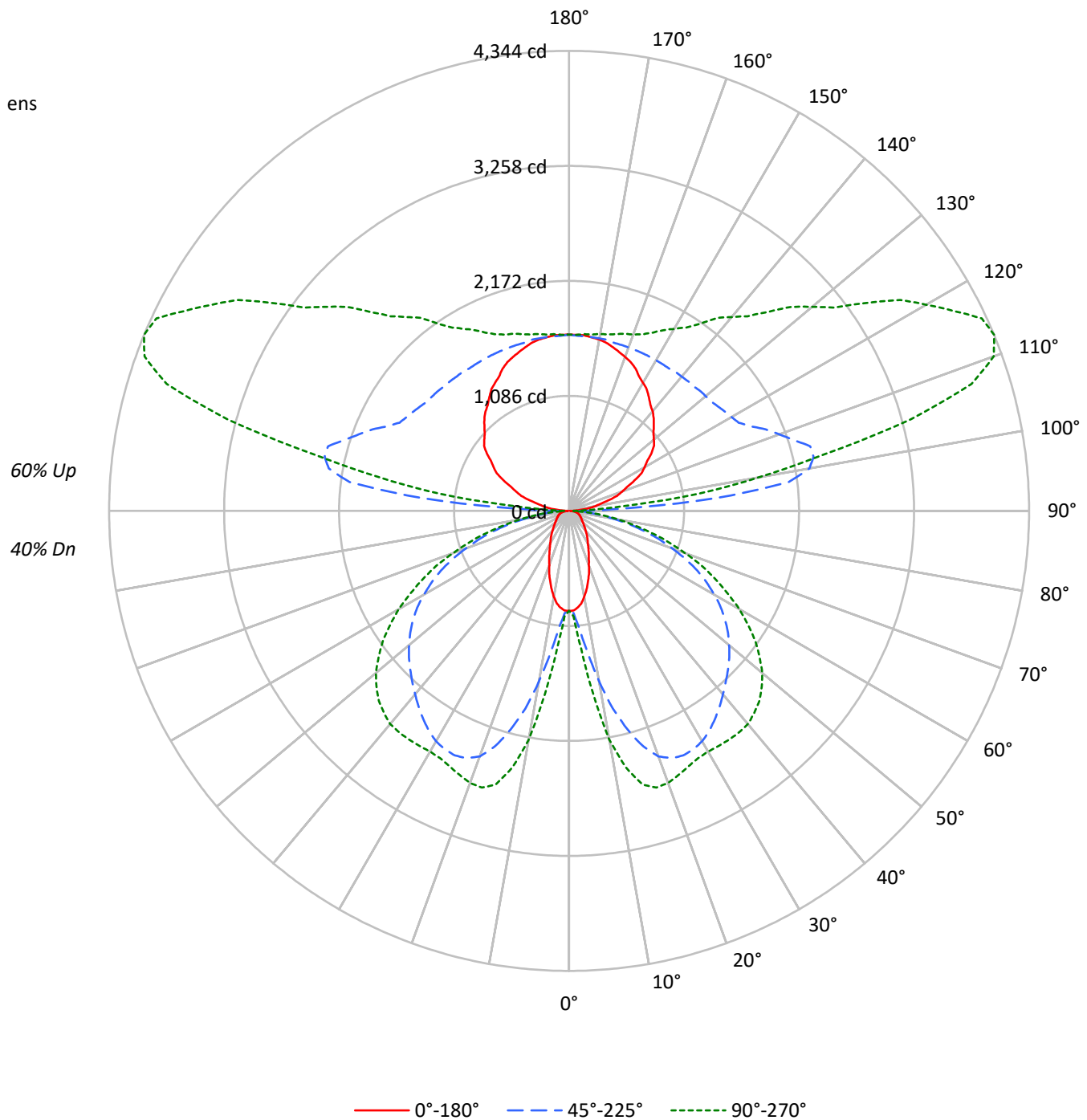
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18084.4 lumens
Efficiency: N/A
Efficacy: 108.7 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): 166.4
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

TEST NUMBER: P938566
CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P938566

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4372	4372	4372
5°	4271	5054	5877
10°	3874	7367	9744
15°	3293	9624	11765
20°	2681	11153	11990
25°	2236	11671	11747
30°	1886	11745	11725
35°	1668	11550	12028
40°	1453	11297	12342
45°	1316	11111	12390
50°	1207	10944	12185
55°	1156	10699	11645
60°	1183	10229	10792
65°	1231	9515	9620
70°	1311	8298	8127
75°	1454	6766	6342
80°	1589	4691	4273
85°	1411	2489	2188

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12390 cd/sqm



TEST NUMBER: P938566

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.9	0.7
10°-20°	540.3	3.0
20°-30°	945.0	5.2
30°-40°	1216.6	6.7
40°-50°	1358.9	7.5
50°-60°	1301.5	7.2
60°-70°	1031.4	5.7
70°-80°	606.5	3.4
80°-90°	174.8	1.0
90°-100°	811.2	4.5
100°-110°	2132.6	11.8
110°-120°	2211.2	12.2
120°-130°	1773.7	9.8
130°-140°	1391.7	7.7
140°-150°	1068.2	5.9
150°-160°	769.3	4.3
160°-170°	470.7	2.6
170°-180°	159.0	0.9
0°-30°	1607.2	8.9
0°-40°	2823.8	15.6
0°-60°	5484.1	30.3
0°-90°	7296.9	40.3
90°-120°	5155.0	28.5
90°-150°	9388.5	51.9
90°-180°	10788.0	59.7
0°-180°	18084.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	918	985	1109	1254	1300	85
15°	688	1270	2139	2594	2676	191
25°	439	1439	2548	2661	2664	202
35°	297	1376	2400	2536	2636	185
45°	203	1097	2121	2430	2539	157
55°	146	697	1800	2091	2148	133
65°	115	370	1336	1503	1524	114
75°	85	227	733	806	809	89
85°	30	70	182	200	203	32
90°	11	31	85	42	42	11
95°	107	420	1397	720	490	119
105°	384	582	2358	3580	3339	407
115°	682	829	1889	3767	4300	674
125°	949	1064	1718	2903	3424	843
135°	1131	1245	1664	2343	2657	875
145°	1312	1396	1643	1999	2156	822
155°	1483	1524	1643	1804	1856	681
165°	1600	1622	1643	1708	1729	452
175°	1664	1664	1654	1675	1675	158
180°	1664	1664	1664	1664	1664	



TEST NUMBER: P938566

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4
2.5°	942.4	942.4	948.5	951.5	957.5	960.6	966.7	972.8	990.9	994.0	1000.0
5°	918.1	930.3	969.7	984.8	1027.3	1084.8	1109.1	1148.5	1230.2	1254.5	1269.6
7.5°	881.8	909.1	1006.1	1030.3	1136.3	1287.9	1351.5	1436.3	1566.6	1630.3	1681.8
10°	824.2	881.8	1054.5	1112.1	1284.9	1515.1	1633.3	1751.5	1948.5	2036.4	2069.7
12.5°	760.6	854.6	1106.1	1184.9	1433.3	1769.7	1912.1	2042.4	2266.7	2384.8	2403.0
15°	687.9	815.2	1154.5	1269.6	1590.9	1981.8	2139.3	2300.0	2509.1	2593.9	2615.1
17.5°	624.2	784.8	1200.0	1321.2	1712.1	2172.7	2333.3	2466.7	2636.3	2693.9	2709.0
20°	545.4	736.4	1230.2	1387.8	1839.4	2312.1	2466.7	2569.6	2684.9	2721.2	2727.2
22.5°	487.9	684.8	1248.5	1412.1	1924.2	2396.9	2527.3	2609.0	2687.8	2700.0	2703.0
25°	439.4	627.3	1245.5	1439.4	1997.0	2448.5	2548.5	2609.0	2654.5	2660.6	2660.6
27.5°	393.9	563.6	1233.3	1445.5	2051.5	2460.6	2539.4	2581.8	2603.0	2615.1	2615.1
30°	354.5	503.0	1203.0	1433.3	2075.8	2448.5	2512.1	2533.3	2554.5	2572.7	2581.8
32.5°	324.3	445.4	1157.5	1409.0	2078.7	2418.1	2463.6	2475.7	2506.1	2548.5	2563.6
35°	297.0	387.8	1106.1	1375.7	2060.6	2369.7	2400.0	2412.1	2472.7	2536.3	2557.5
37.5°	269.7	345.4	1039.4	1318.2	2033.3	2312.1	2333.3	2354.5	2448.5	2524.2	2548.5
40°	242.5	309.1	960.6	1254.5	1990.9	2242.4	2260.6	2293.9	2418.1	2506.1	2530.2
42.5°	221.2	278.8	875.8	1187.9	1936.4	2163.6	2190.9	2239.4	2381.8	2475.7	2503.0
45°	203.1	248.4	784.8	1096.9	1866.6	2081.8	2121.2	2187.9	2339.4	2430.3	2454.5
47.5°	184.9	227.2	690.9	1003.0	1790.9	1999.9	2051.5	2127.3	2281.8	2369.7	2390.9
50°	169.7	206.1	597.0	903.0	1709.1	1912.1	1972.7	2051.5	2209.1	2290.9	2318.1
52.5°	157.6	187.8	509.1	803.0	1615.1	1821.2	1890.9	1972.7	2121.2	2200.0	2218.1
55°	145.5	172.7	433.3	697.0	1518.2	1724.2	1800.0	1878.8	2024.2	2090.9	2103.0
57.5°	139.4	160.6	369.7	597.0	1415.1	1615.1	1700.0	1772.7	1909.1	1960.6	1972.7
60°	130.3	151.5	321.2	512.1	1303.0	1512.1	1584.8	1657.6	1772.7	1815.2	1824.2
62.5°	121.2	145.5	284.9	430.3	1187.9	1390.9	1463.7	1530.3	1627.2	1657.6	1669.7
65°	115.1	139.4	257.6	369.7	1069.7	1263.6	1336.3	1393.9	1472.7	1503.0	1509.0
67.5°	109.0	133.3	236.4	318.2	951.5	1136.3	1190.9	1245.5	1306.1	1336.3	1339.4
70°	100.0	127.3	218.2	281.8	830.3	990.9	1036.3	1093.9	1142.4	1157.5	1166.7
72.5°	93.9	118.2	206.1	254.5	706.0	851.5	894.0	927.3	969.7	984.8	984.8
75°	84.9	106.1	193.9	227.2	578.8	697.0	733.4	766.7	800.0	806.0	797.0
77.5°	75.7	93.9	166.7	190.9	451.5	551.5	581.8	600.0	627.3	633.3	636.4
80°	63.7	81.8	130.3	148.4	327.2	406.0	427.2	442.5	466.6	466.6	472.7
82.5°	48.5	63.7	93.9	106.1	221.2	278.8	297.0	306.0	321.2	321.2	321.2
85°	30.3	39.4	60.6	69.7	133.3	169.7	181.8	184.9	197.0	200.0	200.0
87.5°	15.1	21.2	39.4	42.4	69.7	87.9	87.9	93.9	93.9	90.9	87.9
90°	11.2	20.1	29.0	31.2	49.2	73.0	84.9	75.5	56.6	42.4	42.4
92.5°	44.7	120.6	196.6	215.6	303.1	419.7	478.0	418.9	300.8	212.2	203.8
95°	107.3	246.2	385.2	419.9	745.6	1179.9	1397.1	1246.7	946.0	720.4	694.8
97.5°	185.4	308.0	430.6	461.3	1004.5	1728.7	2090.7	1995.7	1805.6	1663.0	1614.3
100°	245.7	356.9	468.1	495.9	1098.6	1902.2	2304.0	2311.0	2324.9	2335.2	2277.3
102.5°	297.1	400.8	504.5	530.5	1141.8	1956.8	2364.3	2485.5	2727.7	2909.3	2859.7
105°	384.2	472.0	559.9	581.9	1173.8	1963.0	2357.6	2629.2	3172.2	3579.5	3552.8
107.5°	473.5	555.5	637.3	657.8	1179.8	1875.7	2223.6	2602.3	3359.8	3927.9	3934.4
110°	533.9	607.8	681.8	700.2	1170.8	1798.2	2112.0	2535.3	3382.1	4017.3	4045.0



TEST NUMBER: P938566

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	593.1	663.5	734.0	751.6	1171.2	1730.5	2010.2	2443.6	3310.2	3960.2	4002.9
115°	682.4	747.4	812.4	828.7	1182.0	1653.0	1888.6	2306.0	3140.8	3767.0	3826.2
117.5°	770.6	829.7	888.8	903.5	1203.9	1604.5	1804.8	2181.5	2935.0	3500.1	3565.8
120°	822.0	877.6	933.2	947.1	1221.8	1588.1	1771.3	2115.5	2804.0	3320.4	3384.1
122.5°	872.2	928.3	984.4	998.5	1247.5	1579.6	1745.6	2055.5	2675.6	3140.5	3203.4
125°	949.3	1000.4	1051.5	1064.3	1282.1	1572.4	1717.7	1981.0	2507.6	2902.6	2960.5
127.5°	1011.9	1063.5	1115.1	1128.0	1316.7	1568.4	1694.2	1920.3	2372.5	2711.6	2760.5
130°	1045.4	1101.0	1156.6	1170.4	1342.1	1570.8	1685.2	1886.5	2289.1	2591.0	2636.2
132.5°	1080.0	1135.6	1191.2	1205.1	1362.6	1572.5	1677.5	1857.6	2218.0	2488.3	2528.7
135°	1131.3	1182.0	1232.7	1245.3	1384.9	1571.0	1664.0	1815.0	2116.8	2343.1	2377.9
137.5°	1183.9	1234.0	1284.1	1296.6	1418.4	1580.7	1661.9	1789.5	2044.5	2235.9	2264.4
140°	1227.4	1273.6	1319.7	1331.2	1438.9	1582.3	1654.0	1764.2	1984.6	2149.9	2176.6
142.5°	1260.9	1303.6	1346.3	1356.9	1456.0	1588.0	1654.0	1750.8	1944.3	2089.6	2112.5
145°	1312.3	1349.5	1386.7	1396.1	1478.3	1588.0	1642.8	1722.0	1880.3	1999.1	2016.5
147.5°	1363.6	1399.9	1436.2	1445.2	1511.1	1598.9	1642.8	1705.1	1829.7	1923.1	1937.5
150°	1397.1	1429.9	1462.7	1470.8	1528.1	1604.6	1642.8	1695.5	1800.7	1879.6	1891.3
152.5°	1431.8	1456.6	1481.5	1487.7	1539.4	1608.3	1642.8	1687.8	1777.6	1845.0	1853.7
155°	1483.2	1501.5	1519.9	1524.4	1563.9	1616.5	1642.8	1678.5	1750.1	1803.7	1809.5
157.5°	1521.1	1539.0	1556.9	1561.3	1588.5	1624.7	1642.8	1670.7	1726.3	1768.0	1772.1
160°	1546.8	1560.7	1574.6	1578.1	1599.7	1628.4	1642.8	1666.6	1714.3	1750.1	1752.4
162.5°	1572.5	1582.9	1593.4	1596.0	1611.6	1632.4	1642.8	1663.0	1703.2	1733.3	1735.6
165°	1600.4	1609.8	1619.3	1621.6	1628.7	1638.1	1642.8	1657.2	1686.1	1707.6	1710.0
167.5°	1626.1	1630.5	1635.0	1636.2	1642.1	1650.1	1654.0	1663.4	1682.3	1696.4	1697.4
170°	1642.8	1647.3	1651.8	1652.9	1653.3	1653.7	1654.0	1663.4	1682.3	1696.4	1696.4
172.5°	1651.8	1652.7	1653.7	1654.0	1654.0	1654.0	1654.0	1661.4	1676.3	1687.5	1686.6
175°	1664.0	1664.0	1664.0	1664.0	1660.7	1656.2	1654.0	1658.7	1668.1	1675.2	1675.2
177.5°	1664.0	1664.0	1664.0	1664.0	1661.4	1657.9	1656.2	1660.0	1667.4	1673.0	1672.0
180°	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0



TEST NUMBER: P938566

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	942.4	942.4
2.5°	1006.1	1000.0
5°	1293.9	1300.0
7.5°	1742.4	1739.4
10°	2166.7	2194.0
12.5°	2475.7	2481.8
15°	2663.6	2675.7
17.5°	2736.3	2739.4
20°	2739.4	2733.3
22.5°	2706.1	2700.0
25°	2666.7	2663.6
27.5°	2630.2	2633.3
30°	2615.1	2624.2
32.5°	2615.1	2630.2
35°	2621.2	2636.3
37.5°	2618.2	2636.3
40°	2606.1	2627.3
42.5°	2572.7	2587.9
45°	2521.2	2539.4
47.5°	2454.5	2466.7
50°	2369.7	2381.8
52.5°	2263.6	2266.7
55°	2136.3	2148.5
57.5°	1999.9	2003.0
60°	1848.5	1857.6
62.5°	1687.8	1687.8
65°	1518.2	1524.3
67.5°	1342.4	1357.6
70°	1163.6	1166.7
72.5°	987.9	987.9
75°	806.0	809.1
77.5°	633.3	633.3
80°	469.7	472.7
82.5°	324.3	330.3
85°	203.1	203.1
87.5°	93.9	84.9
90°	42.4	42.4
92.5°	170.0	136.3
95°	592.5	490.3
97.5°	1419.7	1225.1
100°	2045.5	1813.7
102.5°	2661.1	2462.6
105°	3446.1	3339.3
107.5°	3960.1	3985.9
110°	4156.2	4267.4



TEST NUMBER: P938566

CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4173.7	4344.4
115°	4063.0	4299.7
117.5°	3828.4	4090.9
120°	3639.3	3894.3
122.5°	3455.1	3706.8
125°	3192.4	3424.2
127.5°	2956.1	3151.7
130°	2816.9	2997.6
132.5°	2690.5	2852.4
135°	2517.4	2656.9
137.5°	2378.6	2492.7
140°	2283.3	2390.0
142.5°	2204.3	2296.2
145°	2086.0	2155.5
147.5°	1995.1	2052.7
150°	1938.0	1984.6
152.5°	1889.0	1924.3
155°	1832.9	1856.2
157.5°	1788.4	1804.8
160°	1761.9	1771.3
162.5°	1744.4	1753.4
165°	1719.4	1728.8
167.5°	1701.5	1705.4
170°	1696.4	1696.4
172.5°	1683.2	1679.7
175°	1675.2	1675.2
177.5°	1668.0	1664.0
180°	1664.0	1664.0



TEST NUMBER: P938566
 CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-8-3500K

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	5.18	5.99	6.21	7.03	8.43	18.36	19.17	19.39	20.21	21.61
	3H	5.88	6.61	6.92	7.66	9.08	20.19	20.92	21.23	21.97	23.39
	4H	6.18	6.87	7.23	7.92	9.35	20.84	21.53	21.89	22.58	24.00
	6H	6.42	7.06	7.49	8.12	9.56	21.26	21.90	22.32	22.96	24.39
	8H	6.49	7.10	7.56	8.17	9.60	21.38	21.99	22.45	23.06	24.50
	12H	6.51	7.08	7.58	8.15	9.61	21.45	22.03	22.52	23.09	24.55
4H	2H	12.39	13.08	13.45	14.13	15.56	18.63	19.32	19.68	20.37	21.79
	3H	13.95	14.53	15.02	15.61	17.05	20.67	21.24	21.73	22.32	23.76
	4H	14.04	14.57	15.12	15.64	17.10	21.43	21.96	22.50	23.03	24.49
	6H	14.05	14.51	15.13	15.60	17.06	21.97	22.42	23.05	23.52	24.97
	8H	14.03	14.45	15.11	15.54	17.01	22.13	22.55	23.21	23.64	25.11
	12H	13.98	14.37	15.08	15.47	16.94	22.22	22.61	23.32	23.70	25.18
8H	4H	15.48	15.91	16.57	17.00	18.47	21.49	21.91	22.57	23.00	24.47
	6H	15.72	16.08	16.83	17.20	18.67	22.11	22.47	23.22	23.59	25.06
	8H	15.74	16.05	16.85	17.16	18.65	22.33	22.64	23.44	23.75	25.24
	12H	15.71	15.98	16.82	17.09	18.61	22.48	22.75	23.59	23.85	25.38
12H	4H	15.62	16.01	16.72	17.11	18.59	21.44	21.82	22.54	22.92	24.40
	6H	15.98	16.29	17.09	17.40	18.89	22.10	22.41	23.21	23.52	25.00
	8H	16.05	16.32	17.16	17.43	18.95	22.32	22.60	23.44	23.70	25.23