

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: P938448

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938448
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

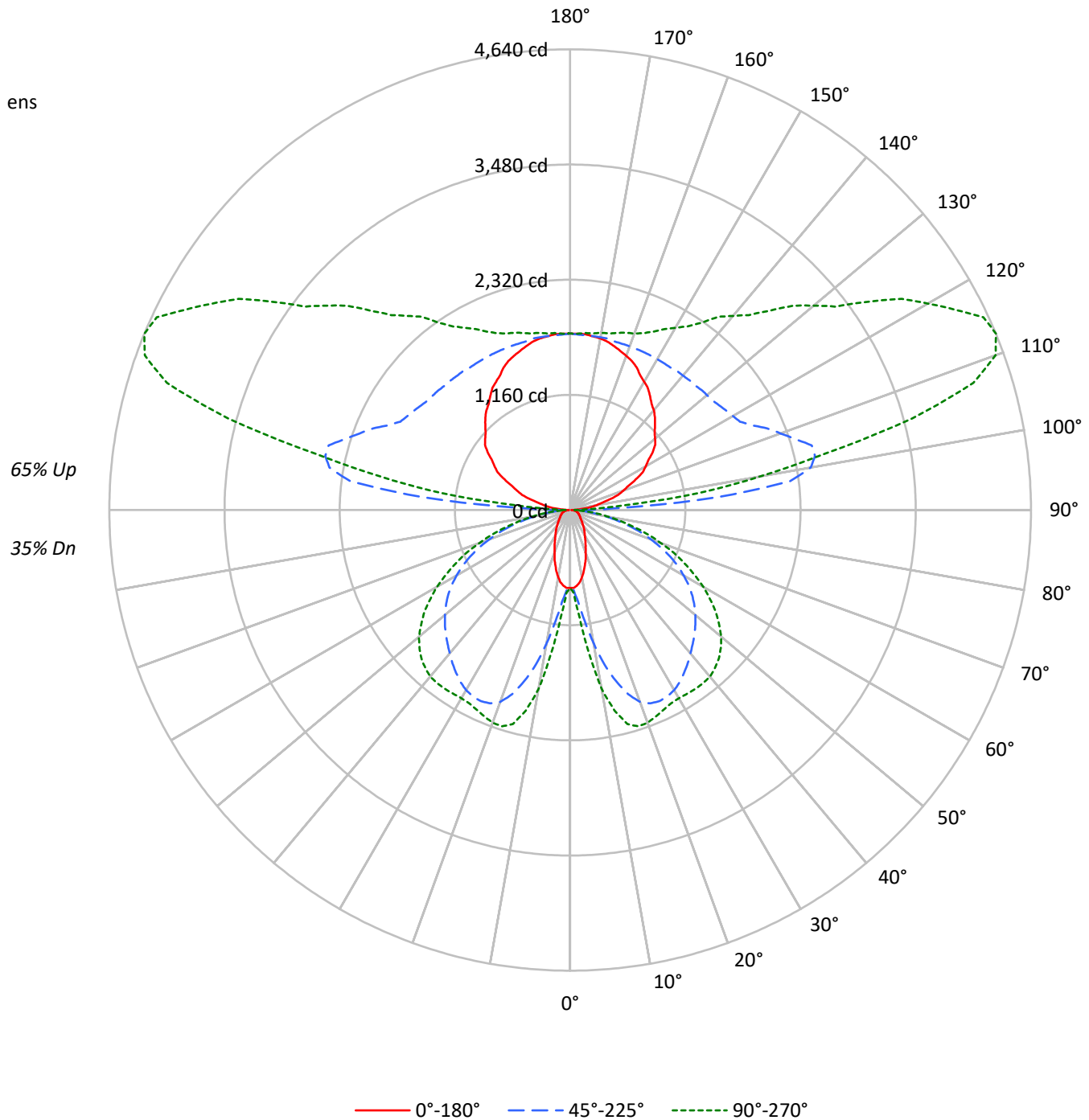
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17607.3 lumens
Efficiency: N/A
Efficacy: 121.6 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: Semi-Indirect

Input Watts (W): 144.8
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: P938448
CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P938448

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

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
RCR																				
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35		
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28		
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23		
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19		
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16		
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14		
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12		
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10		
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9		
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8		
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3646	3646	3646
5°	3562	4214	4901
10°	3231	6143	8125
15°	2746	8026	9811
20°	2236	9300	9999
25°	1865	9732	9795
30°	1573	9794	9777
35°	1391	9631	10030
40°	1211	9420	10291
45°	1097	9265	10332
50°	1006	9126	10160
55°	963	8921	9710
60°	986	8530	8999
65°	1026	7934	8022
70°	1094	6920	6776
75°	1213	5642	5289
80°	1325	3913	3564
85°	1174	2077	1824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10332 cd/sqm



TEST NUMBER: P938448

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.7	0.6
10°-20°	450.5	2.6
20°-30°	788.1	4.5
30°-40°	1014.5	5.8
40°-50°	1133.1	6.4
50°-60°	1085.3	6.2
60°-70°	860.1	4.9
70°-80°	505.8	2.9
80°-90°	147.3	0.8
90°-100°	866.3	4.9
100°-110°	2277.6	12.9
110°-120°	2361.6	13.4
120°-130°	1894.3	10.8
130°-140°	1486.3	8.4
140°-150°	1140.8	6.5
150°-160°	821.6	4.7
160°-170°	502.7	2.9
170°-180°	169.8	1.0
0°-30°	1340.3	7.6
0°-40°	2354.7	13.4
0°-60°	4573.1	26.0
0°-90°	6086.2	34.6
90°-120°	5505.5	31.3
90°-150°	10027.0	56.9
90°-180°	11521.0	65.4
0°-180°	17607.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	766	821	925	1046	1084	71
15°	574	1059	1784	2163	2231	160
25°	366	1200	2125	2219	2221	169
35°	248	1147	2001	2115	2198	155
45°	169	915	1769	2027	2118	131
55°	121	581	1501	1744	1792	111
65°	96	308	1114	1253	1271	95
75°	71	190	612	672	675	74
85°	25	58	152	167	169	27
90°	12	33	91	45	45	12
95°	115	448	1492	769	524	127
105°	410	621	2518	3823	3566	435
115°	729	885	2017	4023	4592	720
125°	1014	1137	1834	3100	3657	900
135°	1208	1330	1777	2502	2838	935
145°	1402	1491	1754	2135	2302	878
155°	1584	1628	1754	1926	1982	728
165°	1709	1732	1754	1824	1846	482
175°	1777	1777	1766	1789	1789	169
180°	1777	1777	1777	1777	1777	



TEST NUMBER: P938448

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9
2.5°	785.9	785.9	791.0	793.4	798.5	801.0	806.1	811.1	826.3	828.8	833.9
5°	765.6	775.8	808.7	821.3	856.7	904.7	924.8	957.7	1025.9	1046.2	1058.8
7.5°	735.3	758.1	839.0	859.1	947.6	1073.9	1127.0	1197.7	1306.4	1359.5	1402.4
10°	687.3	735.3	879.4	927.4	1071.4	1263.4	1362.0	1460.6	1624.8	1698.1	1725.8
12.5°	634.2	712.6	922.3	988.0	1195.2	1475.7	1594.5	1703.2	1890.1	1988.7	2003.8
15°	573.6	679.8	962.8	1058.8	1326.6	1652.6	1784.0	1917.9	2092.2	2163.0	2180.7
17.5°	520.6	654.5	1000.7	1101.7	1427.7	1811.8	1945.8	2056.9	2198.4	2246.4	2259.1
20°	454.9	614.1	1025.9	1157.3	1533.8	1928.1	2056.9	2142.8	2238.8	2269.1	2274.2
22.5°	406.9	571.0	1041.1	1177.6	1604.6	1998.8	2107.4	2175.6	2241.4	2251.5	2254.0
25°	366.4	523.0	1038.5	1200.3	1665.2	2041.8	2125.1	2175.6	2213.6	2218.7	2218.7
27.5°	328.5	470.0	1028.5	1205.4	1710.7	2051.9	2117.6	2153.0	2170.7	2180.7	2180.7
30°	295.7	419.5	1003.1	1195.2	1730.9	2041.8	2094.8	2112.5	2130.2	2145.3	2153.0
32.5°	270.4	371.5	965.3	1175.0	1733.5	2016.5	2054.4	2064.5	2089.8	2125.1	2137.8
35°	247.7	323.5	922.3	1147.2	1718.3	1976.1	2001.3	2011.4	2061.9	2115.0	2132.7
37.5°	224.9	288.1	866.7	1099.2	1695.5	1928.1	1945.8	1963.4	2041.8	2104.9	2125.1
40°	202.1	257.8	801.0	1046.2	1660.1	1869.9	1885.0	1912.9	2016.5	2089.8	2109.9
42.5°	184.4	232.5	730.2	990.5	1614.7	1804.2	1827.0	1867.3	1986.1	2064.5	2087.3
45°	169.3	207.2	654.5	914.7	1556.6	1736.0	1768.9	1824.4	1950.7	2026.6	2046.8
47.5°	154.1	189.5	576.1	836.4	1493.4	1667.8	1710.7	1773.9	1902.7	1976.1	1993.8
50°	141.5	171.8	497.8	753.0	1425.2	1594.5	1645.0	1710.7	1842.1	1910.4	1933.0
52.5°	131.4	156.6	424.5	669.6	1346.8	1518.6	1576.8	1645.0	1768.9	1834.6	1849.7
55°	121.2	144.0	361.3	581.2	1266.0	1437.8	1500.9	1566.7	1688.0	1743.5	1753.7
57.5°	116.3	134.0	308.3	497.8	1180.0	1346.8	1417.6	1478.3	1592.0	1634.9	1645.0
60°	108.6	126.3	267.8	427.0	1086.6	1260.9	1321.6	1382.2	1478.3	1513.7	1521.2
62.5°	101.1	121.2	237.5	358.9	990.5	1159.9	1220.5	1276.1	1356.9	1382.2	1392.3
65°	96.0	116.3	214.8	308.3	892.0	1053.7	1114.3	1162.3	1228.0	1253.4	1258.4
67.5°	90.9	111.2	197.1	265.3	793.4	947.6	993.1	1038.5	1089.1	1114.3	1116.9
70°	83.4	106.1	182.0	235.0	692.4	826.3	864.2	912.2	952.7	965.3	972.8
72.5°	78.3	98.6	171.8	212.3	588.7	710.1	745.4	773.3	808.7	821.3	821.3
75°	70.8	88.4	161.7	189.5	482.7	581.2	611.5	639.3	667.1	672.2	664.6
77.5°	63.2	78.3	138.9	159.2	376.5	459.9	485.2	500.3	523.0	528.1	530.7
80°	53.1	68.3	108.6	123.8	272.9	338.6	356.3	368.9	389.2	389.2	394.2
82.5°	40.4	53.1	78.3	88.4	184.4	232.5	247.7	255.2	267.8	267.8	267.8
85°	25.2	32.9	50.6	58.1	111.2	141.5	151.7	154.1	164.3	166.8	166.8
87.5°	12.6	17.7	32.9	35.4	58.1	73.2	73.2	78.3	78.3	75.8	73.2
90°	12.0	21.5	31.0	33.4	52.5	77.9	90.6	80.6	60.4	45.3	45.3
92.5°	47.7	128.8	210.0	230.3	323.7	448.3	510.5	447.4	321.3	226.6	217.6
95°	114.6	263.0	411.4	448.5	796.3	1260.2	1492.1	1331.5	1010.3	769.4	742.0
97.5°	198.0	328.9	459.9	492.6	1072.8	1846.2	2232.9	2131.4	1928.4	1776.0	1724.1
100°	262.4	381.1	499.9	529.6	1173.3	2031.5	2460.7	2468.1	2482.9	2494.0	2432.2
102.5°	317.3	428.1	538.8	566.5	1219.4	2089.9	2525.1	2654.5	2913.1	3107.1	3054.2
105°	410.3	504.1	598.0	621.4	1253.6	2096.5	2517.9	2808.0	3387.9	3822.9	3794.4
107.5°	505.7	593.2	680.6	702.5	1260.0	2003.2	2374.8	2779.3	3588.3	4195.0	4201.9
110°	570.2	649.2	728.1	747.8	1250.4	1920.5	2255.6	2707.7	3612.1	4290.4	4320.1



TEST NUMBER: P938448

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.4	708.6	783.9	802.7	1250.8	1848.2	2146.9	2609.7	3535.3	4229.5	4275.1
115°	728.8	798.2	867.6	885.1	1262.4	1765.4	2017.0	2462.8	3354.4	4023.2	4086.4
117.5°	823.0	886.1	949.2	965.0	1285.8	1713.6	1927.5	2329.9	3134.6	3738.1	3808.2
120°	877.9	937.3	996.6	1011.5	1304.9	1696.1	1891.7	2259.4	2994.7	3546.1	3614.2
122.5°	931.5	991.5	1051.3	1066.3	1332.4	1687.0	1864.3	2195.3	2857.5	3354.0	3421.3
125°	1013.9	1068.5	1123.0	1136.7	1369.3	1679.4	1834.5	2115.7	2678.1	3100.0	3161.8
127.5°	1080.7	1135.8	1190.9	1204.7	1406.3	1675.1	1809.4	2050.8	2533.8	2896.0	2948.2
130°	1116.5	1175.8	1235.2	1250.0	1433.3	1677.6	1799.8	2014.8	2444.8	2767.2	2815.5
132.5°	1153.5	1212.8	1272.2	1287.0	1455.2	1679.5	1791.5	1983.9	2368.8	2657.5	2700.7
135°	1208.2	1262.4	1316.5	1330.0	1479.0	1677.8	1777.2	1938.4	2260.7	2502.5	2539.6
137.5°	1264.4	1317.9	1371.4	1384.8	1514.8	1688.2	1774.9	1911.1	2183.6	2387.9	2418.4
140°	1310.8	1360.2	1409.4	1421.8	1536.7	1689.9	1766.5	1884.2	2119.6	2296.1	2324.6
142.5°	1346.6	1392.2	1437.8	1449.2	1555.0	1696.0	1766.5	1869.8	2076.6	2231.7	2256.1
145°	1401.5	1441.3	1481.0	1491.0	1578.9	1696.0	1754.5	1839.0	2008.2	2135.1	2153.6
147.5°	1456.4	1495.1	1533.8	1543.5	1613.9	1707.7	1754.5	1821.1	1954.1	2053.9	2069.3
150°	1492.1	1527.1	1562.1	1570.8	1632.0	1713.7	1754.5	1810.7	1923.1	2007.4	2019.9
152.5°	1529.1	1555.6	1582.2	1588.8	1644.1	1717.7	1754.5	1802.5	1898.4	1970.4	1979.8
155°	1584.0	1603.6	1623.2	1628.1	1670.3	1726.4	1754.5	1792.7	1869.1	1926.3	1932.6
157.5°	1624.6	1643.7	1662.7	1667.5	1696.5	1735.2	1754.5	1784.3	1843.6	1888.2	1892.6
160°	1652.0	1666.8	1681.7	1685.4	1708.4	1739.1	1754.5	1780.0	1830.9	1869.1	1871.6
162.5°	1679.5	1690.5	1701.7	1704.5	1721.1	1743.4	1754.5	1776.0	1819.0	1851.2	1853.6
165°	1709.2	1719.2	1729.4	1731.9	1739.4	1749.5	1754.5	1769.9	1800.7	1823.7	1826.2
167.5°	1736.6	1741.4	1746.2	1747.4	1753.8	1762.3	1766.5	1776.5	1796.7	1811.8	1812.8
170°	1754.5	1759.3	1764.1	1765.3	1765.7	1766.2	1766.5	1776.5	1796.7	1811.8	1811.8
172.5°	1764.1	1765.1	1766.2	1766.5	1766.5	1766.5	1766.5	1774.4	1790.3	1802.2	1801.3
175°	1777.2	1777.2	1777.2	1777.2	1773.6	1768.9	1766.5	1771.5	1781.6	1789.1	1789.1
177.5°	1777.2	1777.2	1777.2	1777.2	1774.4	1770.7	1768.9	1772.9	1780.8	1786.7	1785.7
180°	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2



TEST NUMBER: P938448

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	785.9	785.9
2.5°	839.0	833.9
5°	1079.0	1084.0
7.5°	1452.9	1450.4
10°	1806.7	1829.5
12.5°	2064.5	2069.6
15°	2221.1	2231.3
17.5°	2281.8	2284.3
20°	2284.3	2279.3
22.5°	2256.5	2251.5
25°	2223.7	2221.1
27.5°	2193.3	2195.9
30°	2180.7	2188.3
32.5°	2180.7	2193.3
35°	2185.8	2198.4
37.5°	2183.3	2198.4
40°	2173.1	2190.8
42.5°	2145.3	2157.9
45°	2102.4	2117.6
47.5°	2046.8	2056.9
50°	1976.1	1986.1
52.5°	1887.6	1890.1
55°	1781.5	1791.6
57.5°	1667.8	1670.3
60°	1541.4	1549.0
62.5°	1407.5	1407.5
65°	1266.0	1271.1
67.5°	1119.4	1132.0
70°	970.3	972.8
72.5°	823.8	823.8
75°	672.2	674.7
77.5°	528.1	528.1
80°	391.7	394.2
82.5°	270.4	275.5
85°	169.3	169.3
87.5°	78.3	70.8
90°	45.3	45.3
92.5°	181.6	145.5
95°	632.8	523.6
97.5°	1516.2	1308.5
100°	2184.6	1937.1
102.5°	2842.1	2630.1
105°	3680.4	3566.4
107.5°	4229.4	4257.0
110°	4438.8	4557.6



TEST NUMBER: P938448

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4457.5	4639.8
115°	4339.3	4592.1
117.5°	4088.7	4369.1
120°	3886.7	4159.2
122.5°	3690.0	3958.8
125°	3409.5	3657.1
127.5°	3157.2	3366.0
130°	3008.5	3201.4
132.5°	2873.5	3046.3
135°	2688.6	2837.6
137.5°	2540.3	2662.2
140°	2438.6	2552.6
142.5°	2354.2	2452.3
145°	2227.8	2302.0
147.5°	2130.8	2192.3
150°	2069.8	2119.6
152.5°	2017.5	2055.1
155°	1957.5	1982.4
157.5°	1910.0	1927.5
160°	1881.7	1891.7
162.5°	1863.0	1872.6
165°	1836.4	1846.4
167.5°	1817.1	1821.4
170°	1811.8	1811.8
172.5°	1797.6	1793.9
175°	1789.1	1789.1
177.5°	1781.4	1777.2
180°	1777.2	1777.2



TEST NUMBER: P938448

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-6500K

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	3.89	4.65	4.97	5.73	7.21	17.07	17.83	18.14	18.91	20.38
	3H	4.59	5.27	5.67	6.36	7.85	18.90	19.59	19.98	20.67	22.16
	4H	4.88	5.53	5.98	6.62	8.12	19.54	20.19	20.64	21.28	22.78
	6H	5.13	5.73	6.23	6.82	8.33	19.97	20.57	21.07	21.66	23.17
	8H	5.19	5.76	6.30	6.87	8.37	20.09	20.66	21.19	21.76	23.27
	12H	5.21	5.75	6.32	6.85	8.38	20.15	20.69	21.26	21.79	23.32
4H	2H	11.09	11.74	12.19	12.83	14.33	17.33	17.98	18.43	19.07	20.57
	3H	12.65	13.20	13.76	14.31	15.82	19.37	19.91	20.48	21.03	22.54
	4H	12.74	13.24	13.86	14.35	15.88	20.13	20.63	21.24	21.74	23.27
	6H	12.75	13.18	13.87	14.31	15.83	20.66	21.09	21.78	22.22	23.74
	8H	12.72	13.12	13.84	14.24	15.78	20.82	21.22	21.94	22.34	23.88
	12H	12.67	13.04	13.81	14.17	15.71	20.91	21.28	22.05	22.41	23.95
8H	4H	14.18	14.58	15.30	15.70	17.24	20.18	20.58	21.30	21.70	23.24
	6H	14.42	14.75	15.56	15.91	17.45	20.81	21.14	21.95	22.30	23.84
	8H	14.43	14.72	15.58	15.87	17.42	21.03	21.32	22.17	22.46	24.01
	12H	14.40	14.65	15.55	15.79	17.38	21.17	21.42	22.32	22.56	24.15
12H	4H	14.32	14.68	15.45	15.81	17.36	20.13	20.49	21.27	21.63	23.17
	6H	14.67	14.97	15.82	16.11	17.66	20.79	21.08	21.94	22.22	23.78
	8H	14.74	14.99	15.89	16.13	17.72	21.01	21.27	22.17	22.41	24.00