

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: P937556

Luminaire Tested: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937556
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

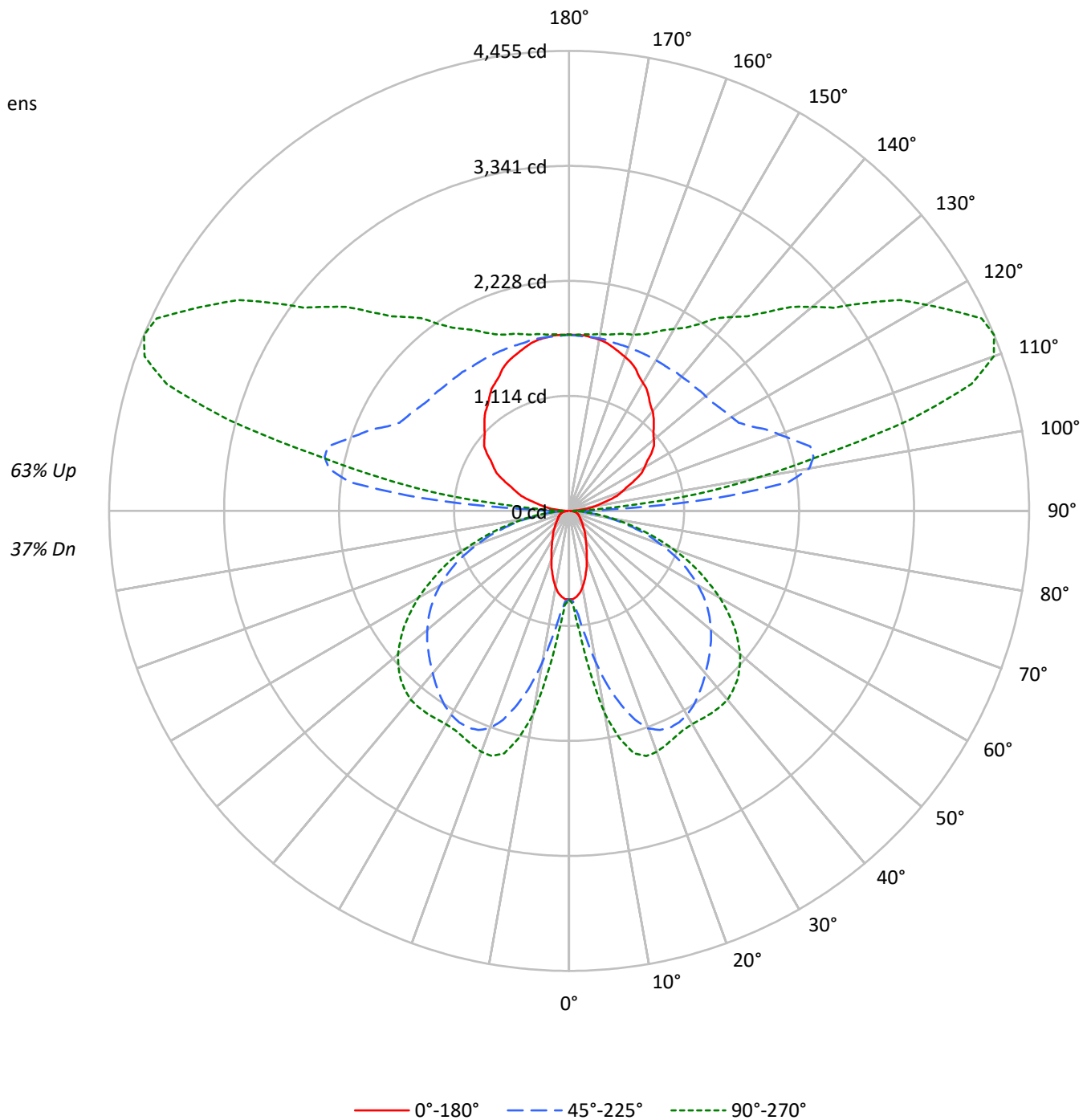
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17691.3 lumens
Efficiency: N/A
Efficacy: 119.9 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-Indirect

Input Watts (W): 147.6
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: P937556
CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P937556

CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2648	2648	2648
5°	2588	3062	3560
10°	2348	4464	5902
15°	1997	5834	7126
20°	1626	6762	7263
25°	1357	7078	7115
30°	1145	7125	7102
35°	1013	7008	7285
40°	883	6856	7475
45°	800	6746	7505
50°	735	6647	7380
55°	704	6501	7053
60°	722	6218	6536
65°	752	5787	5827
70°	804	5050	4923
75°	894	4121	3841
80°	983	2862	2588
85°	891	1521	1325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7505 cd/sqm



TEST NUMBER: P937556

CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.8	0.6
10°-20°	490.9	2.8
20°-30°	858.6	4.9
30°-40°	1105.3	6.2
40°-50°	1234.6	7.0
50°-60°	1182.5	6.7
60°-70°	937.1	5.3
70°-80°	551.0	3.1
80°-90°	159.6	0.9
90°-100°	831.7	4.7
100°-110°	2186.6	12.4
110°-120°	2267.3	12.8
120°-130°	1818.6	10.3
130°-140°	1427.0	8.1
140°-150°	1095.3	6.2
150°-160°	788.8	4.5
160°-170°	482.6	2.7
170°-180°	163.0	0.9
0°-30°	1460.3	8.3
0°-40°	2565.6	14.5
0°-60°	4982.7	28.2
0°-90°	6630.4	37.5
90°-120°	5285.6	29.9
90°-150°	9626.5	54.4
90°-180°	11061.0	62.5
0°-180°	17691.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	834	895	1008	1140	1181	77
15°	625	1154	1944	2357	2431	174
25°	399	1308	2315	2417	2420	184
35°	270	1250	2180	2304	2395	168
45°	184	997	1927	2208	2307	143
55°	132	633	1635	1900	1952	120
65°	105	336	1214	1366	1385	104
75°	77	206	666	732	735	81
85°	28	63	165	182	184	29
90°	12	32	87	44	44	11
95°	110	431	1432	739	503	122
105°	394	597	2417	3670	3424	418
115°	700	850	1936	3862	4409	691
125°	973	1091	1761	2976	3511	864
135°	1160	1277	1706	2402	2724	898
145°	1346	1431	1684	2050	2210	843
155°	1521	1563	1684	1849	1903	699
165°	1641	1663	1684	1751	1773	463
175°	1706	1706	1696	1718	1718	162
180°	1706	1706	1706	1706	1706	



TEST NUMBER: P937556

CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2	856.2
2.5°	856.2	856.2	861.7	864.5	870.0	872.7	878.2	883.7	900.3	903.0	908.5
5°	834.2	845.2	881.0	894.8	933.3	985.6	1007.6	1043.5	1117.8	1139.9	1153.6
7.5°	801.1	825.9	914.0	936.0	1032.4	1170.2	1228.0	1305.1	1423.4	1481.3	1528.1
10°	748.8	801.1	958.1	1010.4	1167.4	1376.6	1484.0	1591.4	1770.3	1850.2	1880.4
12.5°	691.0	776.4	1004.9	1076.5	1302.3	1607.9	1737.3	1855.7	2059.4	2166.8	2183.3
15°	625.0	740.6	1049.0	1153.6	1445.5	1800.6	1943.8	2089.7	2279.6	2356.7	2376.0
17.5°	567.1	713.0	1090.3	1200.4	1555.6	1974.1	2120.0	2241.1	2395.3	2447.6	2461.3
20°	495.6	669.0	1117.8	1261.0	1671.2	2100.7	2241.1	2334.7	2439.3	2472.4	2477.9
22.5°	443.2	622.2	1134.4	1283.0	1748.3	2177.8	2296.2	2370.5	2442.1	2453.1	2455.8
25°	399.2	569.9	1131.6	1307.8	1814.4	2224.6	2315.4	2370.5	2411.8	2417.3	2417.3
27.5°	357.9	512.1	1120.6	1313.3	1863.9	2235.6	2307.2	2345.7	2365.0	2376.0	2376.0
30°	322.1	457.0	1093.1	1302.3	1886.0	2224.6	2282.4	2301.7	2320.9	2337.5	2345.7
32.5°	294.6	404.7	1051.8	1280.3	1888.7	2197.1	2238.3	2249.4	2276.9	2315.4	2329.2
35°	269.8	352.4	1004.9	1250.0	1872.2	2153.0	2180.5	2191.5	2246.6	2304.4	2323.7
37.5°	245.0	313.9	944.3	1197.7	1847.4	2100.7	2120.0	2139.2	2224.6	2293.4	2315.4
40°	220.2	280.8	872.7	1139.9	1808.9	2037.4	2053.9	2084.2	2197.1	2276.9	2298.9
42.5°	201.0	253.3	795.6	1079.3	1759.3	1965.8	1990.6	2034.6	2164.0	2249.4	2274.1
45°	184.5	225.8	713.0	996.6	1696.0	1891.5	1927.3	1987.8	2125.5	2208.1	2230.1
47.5°	167.9	206.5	627.7	911.3	1627.2	1817.1	1863.9	1932.8	2073.2	2153.0	2172.3
50°	154.2	187.2	542.4	820.4	1552.8	1737.3	1792.4	1863.9	2007.1	2081.4	2106.2
52.5°	143.2	170.7	462.5	729.6	1467.5	1654.7	1718.0	1792.4	1927.3	1998.8	2015.3
55°	132.1	156.9	393.7	633.2	1379.4	1566.6	1635.4	1707.0	1839.2	1899.7	1910.7
57.5°	126.6	145.9	335.9	542.4	1285.8	1467.5	1544.6	1610.6	1734.5	1781.3	1792.4
60°	118.4	137.7	291.8	465.3	1183.9	1373.9	1440.0	1506.0	1610.6	1649.2	1657.4
62.5°	110.1	132.1	258.8	390.9	1079.3	1263.8	1329.8	1390.4	1478.5	1506.0	1517.0
65°	104.6	126.6	234.0	335.9	971.8	1148.1	1214.2	1266.5	1338.1	1365.6	1371.1
67.5°	99.1	121.1	214.7	289.1	864.5	1032.4	1082.1	1131.6	1186.7	1214.2	1217.0
70°	90.9	115.6	198.2	256.0	754.3	900.3	941.6	993.9	1037.9	1051.8	1060.0
72.5°	85.3	107.4	187.2	231.3	641.5	773.6	812.2	842.4	881.0	894.8	894.8
75°	77.1	96.4	176.2	206.5	525.8	633.2	666.2	696.5	726.8	732.3	724.1
77.5°	68.8	85.3	151.4	173.4	410.2	501.1	528.6	545.1	569.9	575.4	578.1
80°	57.8	74.3	118.4	134.9	297.3	368.9	388.2	402.0	424.0	424.0	429.5
82.5°	44.0	57.8	85.3	96.4	201.0	253.3	269.8	278.1	291.8	291.8	291.8
85°	27.5	35.8	55.1	63.3	121.1	154.2	165.2	167.9	179.0	181.7	181.7
87.5°	13.8	19.3	35.8	38.5	63.3	79.8	79.8	85.3	85.3	82.6	79.8
90°	11.5	20.6	29.7	32.0	50.4	74.8	87.0	77.4	58.0	43.5	43.5
92.5°	45.8	123.6	201.5	221.0	310.7	430.3	490.1	429.6	308.4	217.6	209.0
95°	109.9	252.5	395.0	430.6	764.5	1209.9	1432.5	1278.3	969.9	738.6	712.3
97.5°	190.1	315.8	441.5	473.0	1029.8	1772.3	2143.6	2046.2	1851.3	1705.1	1655.2
100°	251.9	365.9	479.9	508.4	1126.4	1950.4	2362.4	2369.6	2383.8	2394.4	2335.1
102.5°	304.6	410.9	517.3	543.9	1170.7	2006.4	2424.3	2548.4	2796.8	2983.1	2932.1
105°	394.0	484.0	574.1	596.6	1203.6	2012.8	2417.4	2695.8	3252.6	3670.1	3642.8
107.5°	485.6	569.5	653.5	674.5	1209.6	1923.1	2279.9	2668.3	3444.9	4027.4	4034.0
110°	547.4	623.2	699.0	718.0	1200.4	1843.7	2165.4	2599.6	3467.8	4119.0	4147.5



TEST NUMBER: P937556

CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	608.1	680.4	752.6	770.7	1200.9	1774.5	2061.2	2505.6	3394.2	4060.6	4104.4
115°	699.7	766.4	833.0	849.7	1211.9	1694.9	1936.4	2364.4	3220.5	3862.5	3923.1
117.5°	790.1	850.7	911.3	926.4	1234.5	1645.2	1850.5	2236.8	3009.4	3588.8	3656.1
120°	842.8	899.8	956.9	971.1	1252.8	1628.4	1816.2	2169.2	2875.0	3404.5	3469.9
122.5°	894.4	951.9	1009.4	1023.8	1279.2	1619.6	1789.9	2107.7	2743.4	3220.1	3284.6
125°	973.4	1025.8	1078.2	1091.3	1314.6	1612.4	1761.2	2031.2	2571.2	2976.2	3035.6
127.5°	1037.5	1090.4	1143.4	1156.6	1350.1	1608.2	1737.2	1969.0	2432.6	2780.3	2830.4
130°	1071.9	1128.9	1185.8	1200.1	1376.1	1610.7	1728.0	1934.4	2347.2	2656.7	2703.1
132.5°	1107.4	1164.4	1221.4	1235.6	1397.0	1612.3	1719.9	1904.7	2274.2	2551.4	2592.9
135°	1160.1	1211.9	1263.8	1276.8	1419.9	1610.8	1706.3	1861.0	2170.3	2402.4	2438.2
137.5°	1213.8	1265.2	1316.6	1329.5	1454.3	1620.7	1704.0	1834.7	2096.4	2292.6	2321.9
140°	1258.5	1305.9	1353.1	1365.0	1475.3	1622.4	1695.9	1808.9	2034.9	2204.4	2231.7
142.5°	1292.8	1336.6	1380.4	1391.3	1492.8	1628.2	1695.9	1795.2	1993.7	2142.5	2166.0
145°	1345.5	1383.7	1421.9	1431.4	1515.8	1628.3	1684.5	1765.6	1928.0	2049.8	2067.6
147.5°	1398.2	1435.4	1472.5	1481.8	1549.3	1639.5	1684.5	1748.4	1876.1	1971.9	1986.7
150°	1432.5	1466.1	1499.7	1508.1	1567.0	1645.3	1684.5	1738.5	1846.3	1927.3	1939.2
152.5°	1468.0	1493.5	1519.0	1525.3	1578.3	1649.1	1684.5	1730.6	1822.6	1891.7	1900.7
155°	1520.7	1539.5	1558.4	1563.1	1603.6	1657.5	1684.5	1721.1	1794.4	1849.3	1855.3
157.5°	1559.6	1578.0	1596.3	1600.9	1628.8	1666.0	1684.5	1713.0	1770.0	1812.7	1816.9
160°	1586.0	1600.3	1614.5	1618.1	1640.2	1669.7	1684.5	1708.9	1757.8	1794.4	1796.8
162.5°	1612.3	1622.9	1633.7	1636.3	1652.4	1673.8	1684.5	1705.1	1746.3	1777.2	1779.5
165°	1640.9	1650.6	1660.3	1662.7	1669.9	1679.7	1684.5	1699.3	1728.8	1750.9	1753.3
167.5°	1667.3	1671.9	1676.4	1677.6	1683.7	1691.9	1695.9	1705.6	1725.0	1739.5	1740.5
170°	1684.5	1689.1	1693.7	1694.8	1695.2	1695.6	1695.9	1705.6	1725.0	1739.5	1739.5
172.5°	1693.6	1694.6	1695.6	1695.9	1695.9	1695.9	1695.9	1703.5	1718.8	1730.3	1729.4
175°	1706.3	1706.3	1706.3	1706.3	1702.8	1698.2	1695.9	1700.8	1710.4	1717.6	1717.6
177.5°	1706.3	1706.3	1706.3	1706.3	1703.6	1700.0	1698.2	1702.0	1709.7	1715.4	1714.3
180°	1706.3	1706.3	1706.3	1706.3	1706.3	1706.3	1706.3	1706.3	1706.3	1706.3	1706.3



TEST NUMBER: P937556

CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	856.2	856.2
2.5°	914.0	908.5
5°	1175.7	1181.2
7.5°	1583.1	1580.4
10°	1968.5	1993.3
12.5°	2249.4	2254.9
15°	2420.1	2431.1
17.5°	2486.1	2488.9
20°	2488.9	2483.4
22.5°	2458.6	2453.1
25°	2422.8	2420.1
27.5°	2389.8	2392.5
30°	2376.0	2384.3
32.5°	2376.0	2389.8
35°	2381.5	2395.3
37.5°	2378.8	2395.3
40°	2367.7	2387.0
42.5°	2337.5	2351.2
45°	2290.7	2307.2
47.5°	2230.1	2241.1
50°	2153.0	2164.0
52.5°	2056.6	2059.4
55°	1941.0	1952.0
57.5°	1817.1	1819.9
60°	1679.5	1687.7
62.5°	1533.6	1533.6
65°	1379.4	1384.9
67.5°	1219.7	1233.5
70°	1057.3	1060.0
72.5°	897.5	897.5
75°	732.3	735.1
77.5°	575.4	575.4
80°	426.7	429.5
82.5°	294.6	300.1
85°	184.5	184.5
87.5°	85.3	77.1
90°	43.5	43.5
92.5°	174.3	139.7
95°	607.5	502.7
97.5°	1455.7	1256.2
100°	2097.4	1859.7
102.5°	2728.6	2525.0
105°	3533.3	3423.9
107.5°	4060.5	4087.0
110°	4261.5	4375.6



TEST NUMBER: P937556

CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4279.5	4454.6
115°	4166.0	4408.7
117.5°	3925.3	4194.6
120°	3731.4	3993.1
122.5°	3542.6	3800.6
125°	3273.2	3510.9
127.5°	3031.1	3231.6
130°	2888.3	3073.5
132.5°	2758.8	2924.7
135°	2581.2	2724.3
137.5°	2438.9	2556.0
140°	2341.2	2450.6
142.5°	2260.2	2354.3
145°	2138.9	2210.1
147.5°	2045.7	2104.7
150°	1987.1	2034.9
152.5°	1936.9	1973.0
155°	1879.3	1903.2
157.5°	1833.7	1850.5
160°	1806.5	1816.2
162.5°	1788.7	1797.9
165°	1763.0	1772.6
167.5°	1744.5	1748.6
170°	1739.5	1739.5
172.5°	1725.8	1722.2
175°	1717.6	1717.6
177.5°	1710.3	1706.3
180°	1706.3	1706.3



TEST NUMBER: P937556
 CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-5000K

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	3.13	3.91	4.18	4.97	6.41	16.32	17.10	17.37	18.16	19.60
	3H	3.83	4.53	4.89	5.60	7.05	18.16	18.86	19.22	19.93	21.39
	4H	4.12	4.79	5.19	5.86	7.32	18.80	19.47	19.87	20.54	22.00
	6H	4.37	4.98	5.45	6.06	7.53	19.23	19.85	20.32	20.92	22.40
	8H	4.43	5.02	5.52	6.11	7.58	19.35	19.94	20.44	21.03	22.50
	12H	4.45	5.00	5.54	6.09	7.58	19.42	19.98	20.51	21.06	22.56
4H	2H	10.34	11.01	11.42	12.08	13.54	16.58	17.25	17.66	18.32	19.78
	3H	11.90	12.46	12.99	13.56	15.03	18.63	19.19	19.71	20.28	21.76
	4H	11.99	12.51	13.08	13.59	15.09	19.39	19.91	20.49	21.00	22.49
	6H	12.00	12.44	13.10	13.55	15.04	19.93	20.38	21.03	21.49	22.97
	8H	11.97	12.39	13.07	13.49	14.99	20.10	20.51	21.20	21.61	23.12
	12H	11.92	12.30	13.04	13.42	14.93	20.19	20.56	21.31	21.68	23.19
8H	4H	13.43	13.85	14.53	14.95	16.46	19.45	19.86	20.55	20.96	22.47
	6H	13.67	14.01	14.79	15.16	16.66	20.08	20.42	21.20	21.56	23.07
	8H	13.69	13.99	14.82	15.11	16.64	20.30	20.60	21.43	21.72	23.25
	12H	13.65	13.92	14.79	15.04	16.60	20.44	20.71	21.58	21.83	23.39
12H	4H	13.57	13.95	14.69	15.06	16.58	19.40	19.77	20.51	20.89	22.40
	6H	13.93	14.23	15.06	15.36	16.88	20.06	20.36	21.19	21.49	23.01
	8H	14.00	14.26	15.13	15.38	16.94	20.29	20.55	21.42	21.67	23.23