

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: P938508

Luminaire Tested: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938508
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-B50-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

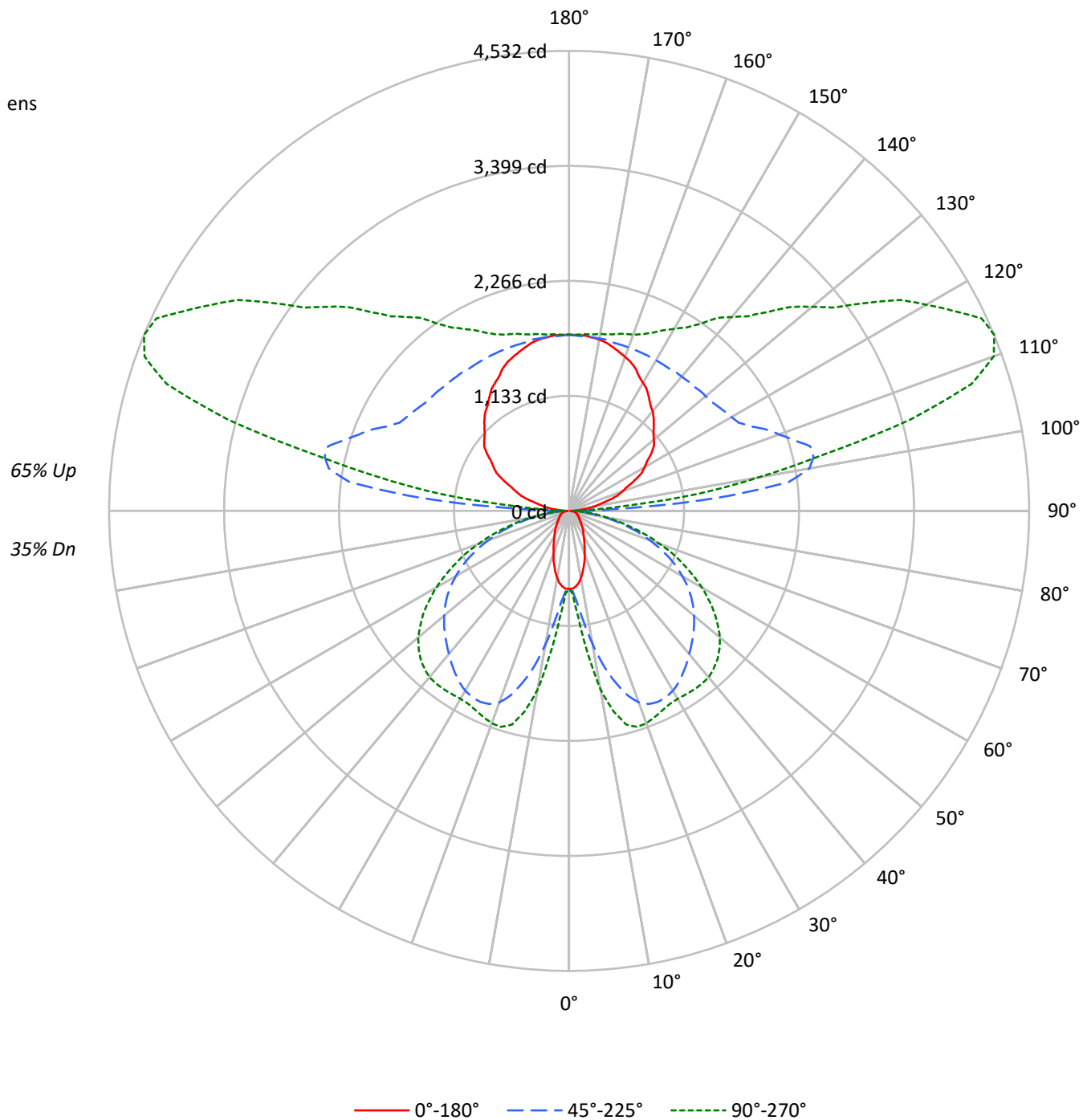
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17198.7 lumens
Efficiency: N/A
Efficacy: 118.8 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: P938508
CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3562	3562	3562
5°	3479	4116	4787
10°	3156	6000	7936
15°	2682	7839	9583
20°	2184	9084	9767
25°	1822	9506	9568
30°	1536	9567	9551
35°	1358	9408	9797
40°	1183	9201	10052
45°	1072	9050	10092
50°	983	8914	9924
55°	941	8715	9485
60°	964	8332	8790
65°	1003	7750	7836
70°	1068	6759	6620
75°	1183	5511	5166
80°	1292	3822	3481
85°	1150	2028	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10092 cd/sqm



TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	0.6
10°-20°	440.1	2.6
20°-30°	769.8	4.5
30°-40°	990.9	5.8
40°-50°	1106.8	6.4
50°-60°	1060.1	6.2
60°-70°	840.1	4.9
70°-80°	494.0	2.9
80°-90°	143.9	0.8
90°-100°	846.2	4.9
100°-110°	2224.7	12.9
110°-120°	2306.8	13.4
120°-130°	1850.3	10.8
130°-140°	1451.9	8.4
140°-150°	1114.3	6.5
150°-160°	802.5	4.7
160°-170°	491.0	2.9
170°-180°	165.9	1.0
0°-30°	1309.2	7.6
0°-40°	2300.1	13.4
0°-60°	4467.0	26.0
0°-90°	5945.0	34.6
90°-120°	5377.7	31.3
90°-150°	9794.2	56.9
90°-180°	11254.0	65.4
0°-180°	17198.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	802	903	1022	1059	69
15°	560	1034	1743	2113	2180	156
25°	358	1172	2076	2167	2170	165
35°	242	1121	1955	2066	2147	151
45°	165	894	1728	1980	2068	128
55°	118	568	1466	1703	1750	108
65°	94	301	1088	1224	1242	93
75°	69	185	597	657	659	72
85°	25	57	148	163	165	26
90°	12	33	88	44	44	11
95°	112	438	1458	752	512	124
105°	401	607	2460	3734	3484	425
115°	712	864	1970	3930	4486	703
125°	990	1110	1792	3028	3572	879
135°	1180	1299	1736	2444	2772	913
145°	1369	1456	1714	2086	2249	858
155°	1547	1590	1714	1882	1936	711
165°	1670	1692	1714	1781	1804	471
175°	1736	1736	1726	1748	1748	165
180°	1736	1736	1736	1736	1736	



TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7
2.5°	767.7	767.7	772.6	775.0	780.0	782.4	787.4	792.3	807.2	809.6	814.5
5°	747.9	757.8	789.9	802.2	836.8	883.7	903.4	935.5	1002.1	1021.9	1034.2
7.5°	718.2	740.5	819.5	839.2	925.6	1049.0	1100.8	1169.9	1276.1	1328.0	1369.9
10°	671.4	718.2	859.0	905.9	1046.5	1234.1	1330.4	1426.7	1587.1	1658.7	1685.8
12.5°	619.5	696.0	900.9	965.1	1167.5	1441.4	1557.4	1663.6	1846.2	1942.5	1957.3
15°	560.3	664.0	940.4	1034.2	1295.8	1614.2	1742.6	1873.4	2043.7	2112.8	2130.1
17.5°	508.5	639.3	977.4	1076.2	1394.6	1769.7	1900.6	2009.1	2147.4	2194.2	2206.7
20°	444.3	599.8	1002.1	1130.4	1498.2	1883.3	2009.1	2093.1	2186.9	2216.5	2221.4
22.5°	397.4	557.8	1016.9	1150.2	1567.3	1952.4	2058.5	2125.1	2189.4	2199.2	2201.7
25°	357.9	510.9	1014.4	1172.5	1626.6	1994.4	2075.8	2125.1	2162.2	2167.2	2167.2
27.5°	320.8	459.1	1004.6	1177.4	1671.0	2004.3	2068.4	2103.0	2120.3	2130.1	2130.1
30°	288.8	409.7	979.9	1167.5	1690.7	1994.4	2046.2	2063.5	2080.8	2095.5	2103.0
32.5°	264.1	362.9	942.9	1147.7	1693.2	1969.7	2006.7	2016.6	2041.3	2075.8	2088.1
35°	241.9	316.0	900.9	1120.6	1678.4	1930.2	1954.9	1964.8	2014.1	2065.9	2083.2
37.5°	219.7	281.4	846.6	1073.7	1656.2	1883.3	1900.6	1917.9	1994.4	2056.0	2075.8
40°	197.4	251.8	782.4	1021.9	1621.6	1826.5	1841.3	1868.5	1969.7	2041.3	2061.0
42.5°	180.2	227.1	713.3	967.5	1577.2	1762.4	1784.6	1824.0	1940.0	2016.6	2038.8
45°	165.4	202.4	639.3	893.5	1520.5	1695.7	1727.8	1782.1	1905.5	1979.5	1999.3
47.5°	150.6	185.1	562.7	817.0	1458.7	1629.1	1671.0	1732.8	1858.6	1930.2	1947.5
50°	138.2	167.8	486.2	735.5	1392.1	1557.4	1606.9	1671.0	1799.4	1866.0	1888.2
52.5°	128.3	153.0	414.7	654.1	1315.5	1483.4	1540.2	1606.9	1727.8	1792.0	1806.7
55°	118.4	140.7	353.0	567.7	1236.6	1404.5	1466.1	1530.4	1648.8	1703.1	1713.0
57.5°	113.6	130.9	301.1	486.2	1152.6	1315.5	1384.7	1444.0	1555.0	1597.0	1606.9
60°	106.1	123.4	261.6	417.1	1061.4	1231.7	1290.9	1350.1	1444.0	1478.5	1485.9
62.5°	98.7	118.4	232.0	350.5	967.5	1132.9	1192.2	1246.5	1325.4	1350.1	1360.0
65°	93.8	113.6	209.8	301.1	871.3	1029.3	1088.5	1135.4	1199.5	1224.3	1229.2
67.5°	88.8	108.6	192.5	259.2	775.0	925.6	970.1	1014.4	1063.8	1088.5	1091.0
70°	81.4	103.7	177.7	229.6	676.3	807.2	844.1	891.0	930.5	942.9	950.3
72.5°	76.5	96.3	167.8	207.3	575.1	693.6	728.1	755.3	789.9	802.2	802.2
75°	69.1	86.4	157.9	185.1	471.5	567.7	597.3	624.5	651.7	656.6	649.1
77.5°	61.7	76.5	135.7	155.5	367.8	449.3	473.9	488.7	510.9	515.8	518.4
80°	51.8	66.7	106.1	121.0	266.6	330.7	348.0	360.3	380.1	380.1	385.1
82.5°	39.5	51.8	76.5	86.4	180.2	227.1	241.9	249.3	261.6	261.6	261.6
85°	24.7	32.1	49.4	56.8	108.6	138.2	148.1	150.6	160.5	162.9	162.9
87.5°	12.3	17.3	32.1	34.6	56.8	71.5	71.5	76.5	76.5	74.1	71.5
90°	11.7	21.0	30.3	32.6	51.3	76.1	88.5	78.7	59.0	44.3	44.3
92.5°	46.6	125.8	205.1	224.9	316.2	437.9	498.7	437.0	313.8	221.4	212.6
95°	111.9	256.8	401.8	438.0	777.8	1230.9	1457.5	1300.6	986.9	751.5	724.8
97.5°	193.4	321.3	449.3	481.2	1047.9	1803.4	2181.1	2081.9	1883.6	1734.8	1684.1
100°	256.3	372.3	488.3	517.3	1146.1	1984.4	2403.6	2410.8	2425.3	2436.2	2375.7
102.5°	309.9	418.2	526.3	553.4	1191.1	2041.4	2466.5	2592.9	2845.5	3035.0	2983.3
105°	400.8	492.4	584.1	607.0	1224.5	2047.8	2459.5	2742.8	3309.3	3734.1	3706.3
107.5°	494.0	579.5	664.8	686.2	1230.7	1956.7	2319.7	2714.8	3505.0	4097.6	4104.4
110°	556.9	634.1	711.2	730.5	1221.4	1875.9	2203.2	2644.9	3528.3	4190.9	4219.8



TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	618.7	692.2	765.7	784.1	1221.8	1805.3	2097.1	2549.2	3453.3	4131.4	4175.9
115°	711.9	779.7	847.5	864.5	1233.1	1724.4	1970.2	2405.6	3276.6	3929.8	3991.5
117.5°	803.9	865.5	927.2	942.6	1255.9	1673.8	1882.8	2275.8	3061.8	3651.4	3719.8
120°	857.5	915.5	973.5	988.0	1274.6	1656.7	1847.8	2206.9	2925.2	3463.8	3530.3
122.5°	909.9	968.5	1026.9	1041.6	1301.4	1647.9	1821.0	2144.4	2791.2	3276.2	3341.9
125°	990.3	1043.7	1097.0	1110.3	1337.5	1640.4	1791.9	2066.6	2615.9	3028.0	3088.5
127.5°	1055.6	1109.4	1163.3	1176.7	1373.6	1636.2	1767.4	2003.2	2475.0	2828.8	2879.8
130°	1090.5	1148.5	1206.5	1221.0	1400.1	1638.7	1758.1	1968.0	2388.1	2703.0	2750.2
132.5°	1126.7	1184.7	1242.7	1257.2	1421.5	1640.5	1749.9	1937.9	2313.8	2595.8	2638.0
135°	1180.2	1233.1	1285.9	1299.1	1444.7	1638.9	1735.9	1893.4	2208.3	2444.4	2480.7
137.5°	1235.0	1287.3	1339.5	1352.6	1479.6	1649.0	1733.7	1866.8	2132.9	2332.5	2362.3
140°	1280.4	1328.6	1376.7	1388.8	1501.0	1650.7	1725.5	1840.4	2070.4	2242.8	2270.6
142.5°	1315.4	1359.9	1404.5	1415.6	1518.9	1656.6	1725.5	1826.4	2028.4	2179.9	2203.8
145°	1369.0	1407.8	1446.7	1456.4	1542.2	1656.6	1713.8	1796.4	1961.6	2085.5	2103.6
147.5°	1422.6	1460.4	1498.2	1507.7	1576.4	1668.0	1713.8	1778.8	1908.7	2006.2	2021.3
150°	1457.5	1491.7	1525.9	1534.4	1594.2	1673.9	1713.8	1768.7	1878.5	1960.8	1973.0
152.5°	1493.7	1519.5	1545.5	1551.9	1605.9	1677.8	1713.8	1760.7	1854.4	1924.7	1933.8
155°	1547.3	1566.4	1585.6	1590.3	1631.5	1686.3	1713.8	1751.1	1825.7	1881.6	1887.7
157.5°	1586.9	1605.5	1624.1	1628.8	1657.1	1694.9	1713.8	1742.8	1800.8	1844.4	1848.7
160°	1613.7	1628.1	1642.6	1646.3	1668.8	1698.8	1713.8	1738.6	1788.4	1825.7	1828.1
162.5°	1640.5	1651.3	1662.2	1664.9	1681.2	1703.0	1713.8	1734.8	1776.7	1808.2	1810.6
165°	1669.5	1679.3	1689.2	1691.7	1699.0	1708.8	1713.8	1728.8	1758.9	1781.4	1783.8
167.5°	1696.3	1701.0	1705.7	1706.9	1713.0	1721.4	1725.5	1735.3	1755.0	1769.7	1770.8
170°	1713.8	1718.5	1723.1	1724.4	1724.7	1725.2	1725.5	1735.3	1755.0	1769.7	1769.7
172.5°	1723.1	1724.2	1725.2	1725.5	1725.5	1725.5	1725.5	1733.2	1748.7	1760.4	1759.5
175°	1735.9	1735.9	1735.9	1735.9	1732.5	1727.8	1725.5	1730.4	1740.2	1747.6	1747.6
177.5°	1735.9	1735.9	1735.9	1735.9	1733.2	1729.6	1727.8	1731.7	1739.5	1745.3	1744.2
180°	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9



TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	767.7	767.7
2.5°	819.5	814.5
5°	1053.9	1058.9
7.5°	1419.2	1416.8
10°	1764.8	1787.0
12.5°	2016.6	2021.5
15°	2169.6	2179.5
17.5°	2228.8	2231.3
20°	2231.3	2226.4
22.5°	2204.1	2199.2
25°	2172.1	2169.6
27.5°	2142.4	2144.9
30°	2130.1	2137.6
32.5°	2130.1	2142.4
35°	2135.0	2147.4
37.5°	2132.6	2147.4
40°	2122.7	2140.0
42.5°	2095.5	2107.9
45°	2053.6	2068.4
47.5°	1999.3	2009.1
50°	1930.2	1940.0
52.5°	1843.8	1846.2
55°	1740.1	1750.0
57.5°	1629.1	1631.5
60°	1505.6	1513.1
62.5°	1374.8	1374.8
65°	1236.6	1241.6
67.5°	1093.4	1105.8
70°	947.8	950.3
72.5°	804.6	804.6
75°	656.6	659.0
77.5°	515.8	515.8
80°	382.6	385.1
82.5°	264.1	269.1
85°	165.4	165.4
87.5°	76.5	69.1
90°	44.3	44.3
92.5°	177.4	142.2
95°	618.1	511.5
97.5°	1481.0	1278.1
100°	2133.9	1892.1
102.5°	2776.1	2569.1
105°	3595.0	3483.6
107.5°	4131.3	4158.2
110°	4335.8	4451.8



TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4354.0	4532.1
115°	4238.6	4485.5
117.5°	3993.8	4267.7
120°	3796.5	4062.6
122.5°	3604.4	3866.9
125°	3330.4	3572.2
127.5°	3083.9	3287.9
130°	2938.6	3127.1
132.5°	2806.8	2975.6
135°	2626.2	2771.7
137.5°	2481.4	2600.4
140°	2382.0	2493.3
142.5°	2299.6	2395.4
145°	2176.1	2248.6
147.5°	2081.3	2141.4
150°	2021.7	2070.4
152.5°	1970.6	2007.4
155°	1912.1	1936.4
157.5°	1865.7	1882.8
160°	1838.0	1847.8
162.5°	1819.8	1829.1
165°	1793.7	1803.6
167.5°	1775.0	1779.1
170°	1769.7	1769.7
172.5°	1755.9	1752.3
175°	1747.6	1747.6
177.5°	1740.0	1735.9
180°	1735.9	1735.9



TEST NUMBER: P938508
 CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-STD-W-8

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	3.81	4.57	4.88	5.65	7.12	16.99	17.75	18.06	18.83	20.30
	3H	4.51	5.19	5.59	6.28	7.77	18.82	19.50	19.90	20.59	22.08
	4H	4.80	5.45	5.89	6.54	8.04	19.46	20.11	20.55	21.20	22.70
	6H	5.05	5.65	6.15	6.74	8.25	19.89	20.48	20.99	21.58	23.09
	8H	5.11	5.68	6.22	6.79	8.29	20.00	20.57	21.11	21.68	23.18
	12H	5.13	5.67	6.24	6.77	8.30	20.07	20.61	21.18	21.71	23.24
4H	2H	11.01	11.66	12.11	12.75	14.25	17.25	17.90	18.35	18.99	20.49
	3H	12.57	13.11	13.68	14.23	15.74	19.29	19.83	20.39	20.95	22.46
	4H	12.66	13.16	13.77	14.27	15.80	20.05	20.55	21.16	21.65	23.18
	6H	12.67	13.10	13.79	14.22	15.75	20.58	21.01	21.70	22.14	23.66
	8H	12.64	13.04	13.76	14.16	15.70	20.74	21.14	21.86	22.26	23.80
	12H	12.59	12.96	13.73	14.09	15.63	20.83	21.19	21.97	22.33	23.87
8H	4H	14.10	14.50	15.22	15.62	17.16	20.10	20.50	21.22	21.62	23.16
	6H	14.34	14.67	15.48	15.83	17.36	20.73	21.06	21.87	22.22	23.76
	8H	14.35	14.64	15.50	15.78	17.34	20.94	21.23	22.09	22.38	23.93
	12H	14.32	14.57	15.47	15.71	17.30	21.08	21.34	22.24	22.48	24.07
12H	4H	14.24	14.60	15.37	15.73	17.28	20.05	20.41	21.19	21.54	23.09
	6H	14.59	14.88	15.74	16.03	17.58	20.71	21.00	21.86	22.14	23.70
	8H	14.66	14.91	15.81	16.05	17.64	20.93	21.19	22.08	22.33	23.92