

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: P937728

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937728
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

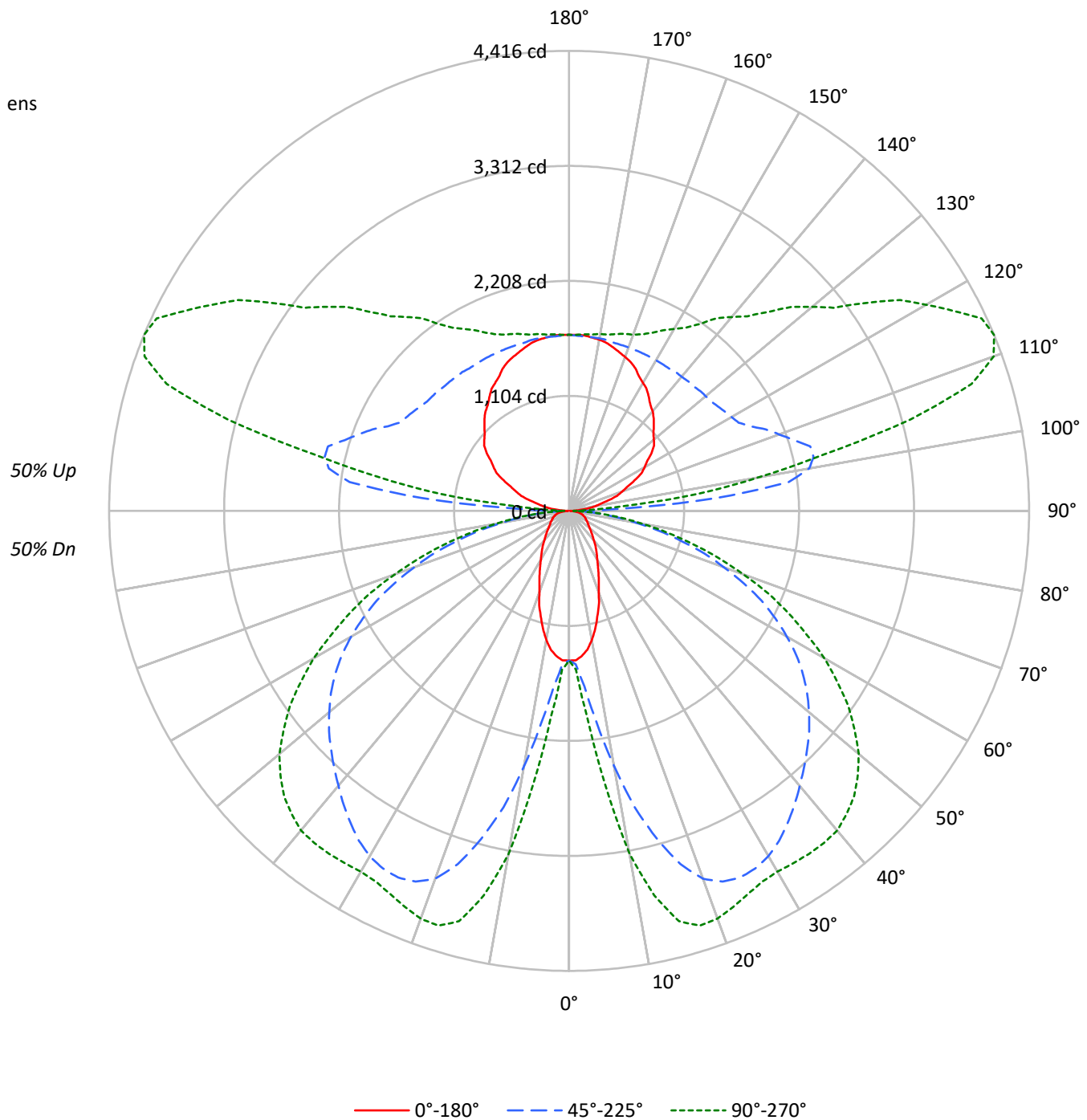
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22080.6 lumens
Efficiency: N/A
Efficacy: 107.0 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): 206.4
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

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Luminous Intensity Polar Plot





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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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50	
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	47	47	47	41	
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	38	38	38	34	
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	32	32	32	28	
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	27	27	27	23	
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	23	23	23	20	
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	20	20	20	17	
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	17	17	17	15	
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	15	15	15	13	
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	14	14	14	11	
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	12	12	12	10	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4442	4442	4442
5°	4341	5136	5971
10°	3939	7488	9899
15°	3349	9785	11953
20°	2728	11342	12182
25°	2276	11872	11934
30°	1920	11950	11912
35°	1699	11755	12220
40°	1481	11500	12538
45°	1342	11315	12587
50°	1232	11148	12379
55°	1181	10904	11830
60°	1211	10430	10964
65°	1262	9707	9773
70°	1347	8471	8256
75°	1499	6913	6443
80°	1650	4800	4342
85°	1497	2551	2222

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12587 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.8	0.8
10°-20°	823.4	3.7
20°-30°	1440.2	6.5
30°-40°	1854.0	8.4
40°-50°	2070.8	9.4
50°-60°	1983.4	9.0
60°-70°	1571.8	7.1
70°-80°	924.3	4.2
80°-90°	263.2	1.2
90°-100°	824.4	3.7
100°-110°	2167.4	9.8
110°-120°	2247.4	10.2
120°-130°	1802.7	8.2
130°-140°	1414.5	6.4
140°-150°	1085.6	4.9
150°-160°	781.8	3.5
160°-170°	478.4	2.2
170°-180°	161.6	0.7
0°-30°	2449.3	11.1
0°-40°	4303.3	19.5
0°-60°	8357.5	37.8
0°-90°	11116.8	50.3
90°-120°	5239.2	23.7
90°-150°	9541.9	43.2
90°-180°	10964.0	49.7
0°-180°	22080.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1436	1436	1436	1436	1436	
5°	1399	1501	1690	1912	1981	129
15°	1048	1935	3260	3953	4078	292
25°	670	2194	3884	4054	4059	308
35°	452	2096	3657	3865	4018	283
45°	309	1672	3233	3704	3870	239
55°	222	1062	2743	3186	3274	202
65°	176	563	2036	2290	2323	174
75°	129	346	1118	1228	1233	135
85°	46	106	277	305	309	49
90°	11	32	86	43	43	13
95°	109	427	1420	732	498	121
105°	390	591	2396	3638	3394	414
115°	694	842	1919	3829	4370	685
125°	965	1082	1746	2950	3480	857
135°	1150	1266	1691	2381	2700	890
145°	1334	1419	1670	2032	2191	836
155°	1507	1549	1670	1833	1886	693
165°	1626	1648	1670	1736	1757	459
175°	1691	1691	1681	1703	1703	161
180°	1691	1691	1691	1691	1691	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2
2.5°	1436.2	1436.2	1445.4	1450.1	1459.2	1463.9	1473.2	1482.3	1510.1	1514.7	1523.9
5°	1399.2	1417.7	1477.7	1500.8	1565.5	1653.3	1690.2	1750.2	1874.9	1911.9	1934.9
7.5°	1343.8	1385.4	1533.2	1570.1	1731.8	1962.6	2059.6	2189.0	2387.5	2484.5	2563.0
10°	1256.1	1343.8	1607.1	1694.7	1958.0	2308.9	2489.0	2669.1	2969.3	3103.2	3154.1
12.5°	1159.2	1302.2	1685.6	1805.6	2184.3	2696.9	2913.9	3112.5	3454.3	3634.4	3662.0
15°	1048.3	1242.2	1759.4	1934.9	2424.5	3020.2	3260.2	3505.0	3823.7	3953.0	3985.3
17.5°	951.3	1196.1	1828.7	2013.4	2609.1	3311.1	3555.9	3759.0	4017.6	4105.4	4128.5
20°	831.2	1122.1	1874.9	2115.0	2803.1	3523.5	3759.0	3916.0	4091.5	4146.9	4156.1
22.5°	743.4	1043.6	1902.6	2151.9	2932.4	3652.8	3851.4	3976.0	4096.1	4114.6	4119.2
25°	669.6	955.9	1898.0	2193.5	3043.2	3731.3	3883.7	3976.0	4045.3	4054.5	4054.5
27.5°	600.4	859.0	1879.5	2202.8	3126.3	3749.8	3869.9	3934.5	3966.8	3985.3	3985.3
30°	540.3	766.6	1833.3	2184.3	3163.3	3731.3	3828.3	3860.6	3893.0	3920.6	3934.5
32.5°	494.1	678.9	1764.1	2147.4	3167.9	3685.1	3754.4	3772.9	3819.0	3883.7	3906.8
35°	452.5	591.1	1685.6	2096.5	3140.2	3611.3	3657.4	3675.9	3768.3	3865.2	3897.5
37.5°	411.0	526.4	1584.0	2008.8	3098.7	3523.5	3555.9	3588.2	3731.3	3846.8	3883.7
40°	369.4	471.0	1463.9	1911.9	3034.0	3417.3	3445.0	3495.8	3685.1	3819.0	3856.0
42.5°	337.1	424.9	1334.6	1810.3	2950.9	3297.3	3338.8	3412.7	3629.7	3772.9	3814.5
45°	309.4	378.7	1196.1	1671.7	2844.6	3172.5	3232.6	3334.2	3565.0	3703.6	3740.5
47.5°	281.7	346.4	1052.9	1528.6	2729.2	3047.8	3126.3	3241.8	3477.4	3611.3	3643.6
50°	258.6	314.0	909.7	1376.2	2604.6	2913.9	3006.3	3126.3	3366.5	3491.2	3532.8
52.5°	240.1	286.4	775.8	1223.7	2461.4	2775.4	2881.6	3006.3	3232.6	3352.6	3380.3
55°	221.7	263.2	660.4	1062.1	2313.6	2627.6	2743.1	2863.2	3084.8	3186.4	3204.8
57.5°	212.4	244.8	563.4	909.7	2156.6	2461.4	2590.6	2701.5	2909.3	2987.8	3006.3
60°	198.6	230.9	489.5	780.5	1985.7	2304.4	2415.2	2526.1	2701.5	2766.1	2780.0
62.5°	184.7	221.7	434.1	655.8	1810.3	2119.6	2230.4	2332.0	2479.9	2526.1	2544.5
65°	175.5	212.4	392.5	563.4	1630.2	1925.7	2036.5	2124.3	2244.3	2290.5	2299.7
67.5°	166.3	203.2	360.2	484.9	1450.1	1731.8	1814.8	1898.0	1990.4	2036.5	2041.1
70°	152.4	193.9	332.5	429.4	1265.3	1510.1	1579.3	1667.1	1741.0	1764.1	1777.9
72.5°	143.2	180.1	314.0	387.9	1076.0	1297.7	1362.3	1413.1	1477.7	1500.8	1500.8
75°	129.3	161.6	295.5	346.4	882.0	1062.1	1117.6	1168.3	1219.1	1228.4	1214.5
77.5°	115.4	143.2	254.0	290.9	688.0	840.5	886.6	914.4	955.9	965.1	969.8
80°	97.0	124.7	198.6	226.3	498.8	618.8	651.1	674.2	711.2	711.2	720.4
82.5°	73.9	97.0	143.2	161.6	337.1	424.9	452.5	466.4	489.5	489.5	489.5
85°	46.2	60.0	92.3	106.2	203.2	258.6	277.1	281.7	300.2	304.8	304.8
87.5°	23.1	32.3	60.0	64.7	106.2	133.9	133.9	143.2	143.2	138.5	133.9
90°	11.4	20.5	29.5	31.7	49.9	74.1	86.2	76.7	57.5	43.1	43.1
92.5°	45.4	122.5	199.8	219.0	308.0	426.5	485.8	425.8	305.7	215.7	207.1
95°	109.0	250.2	391.5	426.8	757.8	1199.3	1419.9	1267.1	961.4	732.1	706.1
97.5°	188.4	313.0	437.6	468.8	1020.8	1756.8	2124.8	2028.2	1835.0	1690.1	1640.7
100°	249.7	362.7	475.6	503.9	1116.5	1933.3	2341.7	2348.8	2362.9	2373.4	2314.6
102.5°	301.9	407.3	512.8	539.1	1160.4	1988.8	2403.0	2526.1	2772.2	2956.9	2906.4
105°	390.5	479.7	569.1	591.4	1193.0	1995.1	2396.2	2672.1	3224.0	3637.9	3610.8
107.5°	481.3	564.5	647.8	668.6	1199.0	1906.2	2259.9	2644.9	3414.7	3992.0	3998.6
110°	542.6	617.7	692.9	711.7	1189.9	1827.6	2146.4	2576.7	3437.3	4082.8	4111.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.7	674.4	746.0	763.9	1190.4	1758.9	2043.1	2483.6	3364.4	4025.0	4068.4
115°	693.5	759.6	825.7	842.2	1201.3	1680.0	1919.4	2343.7	3192.2	3828.6	3888.7
117.5°	783.2	843.2	903.3	918.3	1223.6	1630.7	1834.3	2217.1	2983.0	3557.3	3624.0
120°	835.4	891.9	948.5	962.6	1241.8	1614.2	1800.3	2150.1	2849.8	3374.6	3439.4
122.5°	886.5	943.6	1000.5	1014.8	1267.9	1605.4	1774.2	2089.2	2719.3	3191.8	3255.8
125°	964.9	1016.8	1068.7	1081.7	1303.1	1598.2	1745.8	2013.4	2548.6	2950.0	3008.9
127.5°	1028.3	1080.8	1133.3	1146.4	1338.3	1594.0	1721.9	1951.7	2411.3	2755.9	2805.6
130°	1062.5	1118.9	1175.4	1189.5	1364.0	1596.6	1712.8	1917.4	2326.6	2633.4	2679.3
132.5°	1097.7	1154.1	1210.6	1224.7	1384.7	1598.1	1704.8	1888.0	2254.3	2529.0	2570.1
135°	1149.9	1201.3	1252.8	1265.6	1407.5	1596.7	1691.3	1844.7	2151.3	2381.3	2416.8
137.5°	1203.2	1254.1	1305.1	1317.8	1441.5	1606.5	1689.0	1818.6	2078.0	2272.5	2301.5
140°	1247.5	1294.4	1341.3	1353.0	1462.3	1608.1	1681.0	1793.0	2017.0	2185.0	2212.1
142.5°	1281.5	1324.9	1368.3	1379.1	1479.7	1613.9	1681.0	1779.4	1976.2	2123.7	2147.0
145°	1333.7	1371.6	1409.4	1418.9	1502.4	1614.0	1669.7	1750.1	1911.1	2031.8	2049.4
147.5°	1385.9	1422.8	1459.6	1468.8	1535.7	1625.1	1669.7	1733.0	1859.7	1954.6	1969.3
150°	1419.9	1453.2	1486.5	1494.9	1553.2	1630.9	1669.7	1723.2	1830.1	1910.3	1922.2
152.5°	1455.1	1480.3	1505.6	1511.9	1564.5	1634.6	1669.7	1715.4	1806.6	1875.1	1884.0
155°	1507.4	1526.0	1544.7	1549.4	1589.5	1643.0	1669.7	1706.0	1778.6	1833.1	1839.0
157.5°	1545.9	1564.1	1582.3	1586.9	1614.5	1651.4	1669.7	1697.9	1754.4	1796.8	1801.0
160°	1572.0	1586.2	1600.3	1603.9	1625.8	1655.1	1669.7	1693.9	1742.3	1778.6	1781.0
162.5°	1598.1	1608.7	1619.3	1622.0	1637.9	1659.1	1669.7	1690.1	1730.9	1761.6	1763.9
165°	1626.5	1636.1	1645.7	1648.1	1655.3	1664.9	1669.7	1684.4	1713.6	1735.5	1737.9
167.5°	1652.6	1657.2	1661.7	1662.9	1668.9	1677.0	1681.0	1690.7	1709.8	1724.2	1725.2
170°	1669.7	1674.3	1678.8	1679.9	1680.3	1680.7	1681.0	1690.7	1709.8	1724.2	1724.2
172.5°	1678.7	1679.7	1680.7	1681.0	1681.0	1681.0	1681.0	1688.6	1703.8	1715.1	1714.2
175°	1691.3	1691.3	1691.3	1691.3	1687.8	1683.3	1681.0	1685.8	1695.4	1702.6	1702.6
177.5°	1691.3	1691.3	1691.3	1691.3	1688.7	1685.1	1683.3	1687.1	1694.7	1700.3	1699.3
180°	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1436.2	1436.2
2.5°	1533.2	1523.9
5°	1971.9	1981.1
7.5°	2655.3	2650.7
10°	3301.8	3343.4
12.5°	3772.9	3782.1
15°	4059.2	4077.6
17.5°	4170.0	4174.6
20°	4174.6	4165.4
22.5°	4123.8	4114.6
25°	4063.8	4059.2
27.5°	4008.4	4013.0
30°	3985.3	3999.1
32.5°	3985.3	4008.4
35°	3994.5	4017.6
37.5°	3989.9	4017.6
40°	3971.5	4003.8
42.5°	3920.6	3943.7
45°	3842.1	3869.9
47.5°	3740.5	3759.0
50°	3611.3	3629.7
52.5°	3449.6	3454.3
55°	3255.7	3274.1
57.5°	3047.8	3052.5
60°	2817.0	2830.8
62.5°	2572.2	2572.2
65°	2313.6	2322.8
67.5°	2045.8	2068.9
70°	1773.3	1777.9
72.5°	1505.4	1505.4
75°	1228.4	1233.0
77.5°	965.1	965.1
80°	715.8	720.4
82.5°	494.1	503.4
85°	309.4	309.4
87.5°	143.2	129.3
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.2	498.3
97.5°	1443.0	1245.2
100°	2079.0	1843.4
102.5°	2704.6	2502.9
105°	3502.3	3393.9
107.5°	4024.9	4051.1
110°	4224.1	4337.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4241.9	4415.5
115°	4129.4	4370.0
117.5°	3890.9	4157.8
120°	3698.7	3958.0
122.5°	3511.5	3767.3
125°	3244.5	3480.1
127.5°	3004.4	3203.2
130°	2862.9	3046.6
132.5°	2734.6	2899.0
135°	2558.5	2700.3
137.5°	2417.5	2533.5
140°	2320.7	2429.1
142.5°	2240.3	2333.7
145°	2120.1	2190.7
147.5°	2027.8	2086.3
150°	1969.6	2017.0
152.5°	1919.9	1955.7
155°	1862.8	1886.5
157.5°	1817.6	1834.3
160°	1790.6	1800.3
162.5°	1773.0	1782.1
165°	1747.5	1757.1
167.5°	1729.2	1733.2
170°	1724.2	1724.2
172.5°	1710.7	1707.1
175°	1702.6	1702.6
177.5°	1695.3	1691.3
180°	1691.3	1691.3



TEST NUMBER: P937728
 CATALOG NUMBER: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-12-4000K

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	6.22	7.13	7.17	8.09	9.36	19.42	20.32	20.36	21.29	22.55
	3H	6.93	7.74	7.89	8.72	10.01	21.26	22.07	22.22	23.05	24.34
	4H	7.23	8.00	8.20	8.98	10.28	21.91	22.68	22.88	23.66	24.96
	6H	7.48	8.19	8.47	9.18	10.49	22.35	23.06	23.33	24.05	25.35
	8H	7.55	8.23	8.54	9.23	10.54	22.48	23.15	23.46	24.16	25.46
	12H	7.57	8.22	8.57	9.21	10.54	22.55	23.19	23.54	24.19	25.52
4H	2H	13.45	14.22	14.43	15.20	16.50	19.69	20.46	20.67	21.44	22.74
	3H	15.02	15.67	16.01	16.68	17.99	21.75	22.39	22.74	23.40	24.71
	4H	15.12	15.71	16.11	16.71	18.04	22.52	23.11	23.52	24.11	25.45
	6H	15.13	15.64	16.14	16.67	18.00	23.07	23.58	24.07	24.60	25.93
	8H	15.11	15.59	16.12	16.61	17.95	23.23	23.71	24.24	24.73	26.07
	12H	15.07	15.50	16.10	16.53	17.88	23.33	23.76	24.36	24.80	26.15
8H	4H	16.57	17.05	17.58	18.07	19.41	22.58	23.06	23.59	24.08	25.43
	6H	16.81	17.21	17.85	18.27	19.61	23.22	23.62	24.25	24.68	26.02
	8H	16.83	17.18	17.88	18.23	19.59	23.44	23.79	24.49	24.84	26.20
	12H	16.80	17.11	17.85	18.15	19.56	23.59	23.90	24.64	24.94	26.35
12H	4H	16.72	17.15	17.75	18.18	19.53	22.54	22.97	23.57	24.01	25.36
	6H	17.08	17.42	18.12	18.47	19.83	23.20	23.55	24.25	24.60	25.96
	8H	17.15	17.45	18.19	18.50	19.90	23.44	23.75	24.49	24.79	26.19