

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: P937517

Luminaire Tested: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937517
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-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

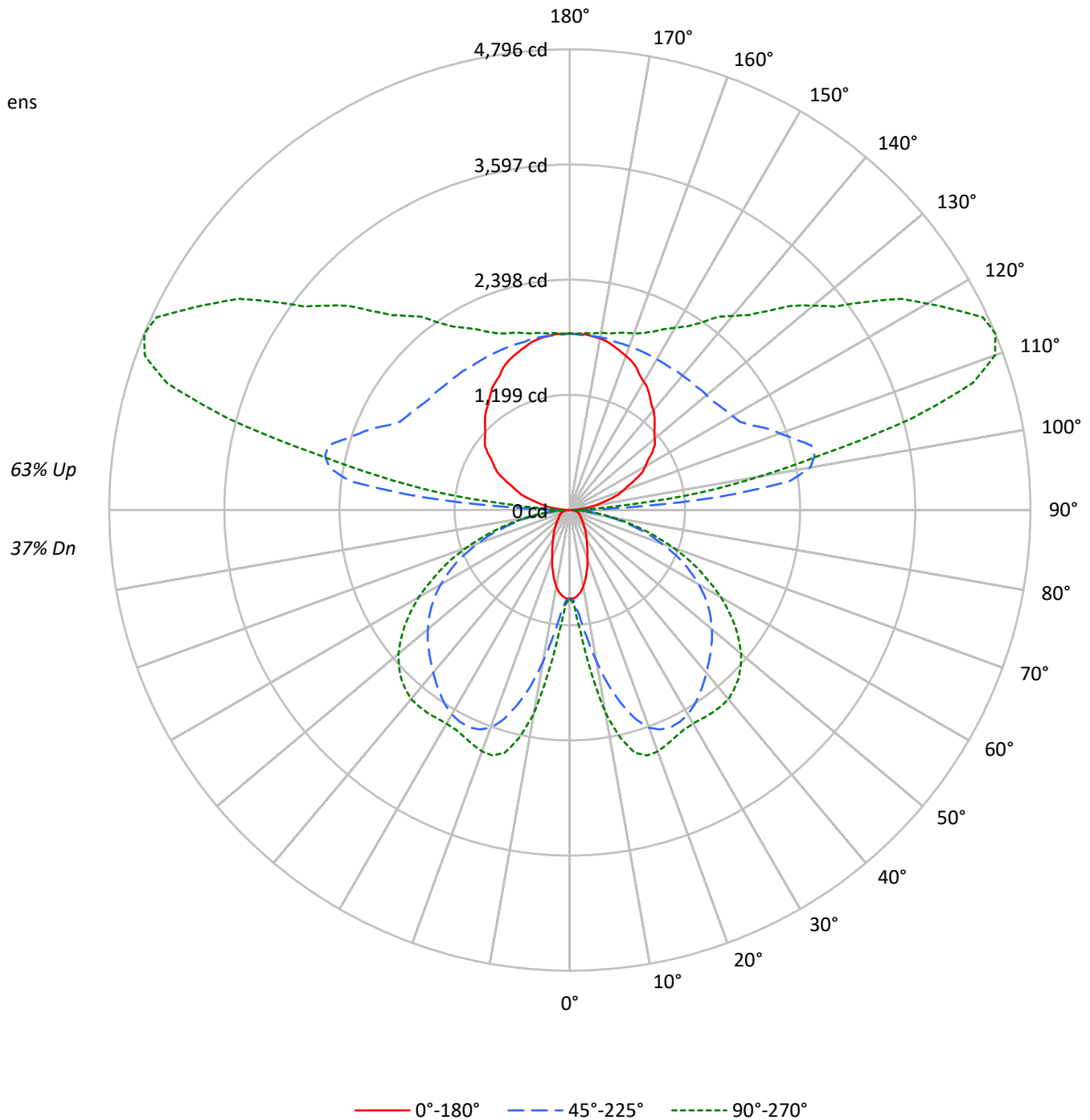
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19046.7 lumens
Efficiency: N/A
Efficacy: 129.0 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: 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: P937517
CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P937517

CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

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°	2851	2851	2851
5°	2786	3296	3833
10°	2528	4806	6354
15°	2150	6281	7672
20°	1751	7280	7819
25°	1461	7620	7660
30°	1233	7671	7646
35°	1091	7545	7844
40°	951	7381	8048
45°	862	7263	8079
50°	791	7156	7946
55°	758	6999	7594
60°	778	6695	7037
65°	810	6231	6273
70°	865	5437	5300
75°	962	4437	4136
80°	1058	3081	2787
85°	959	1637	1426

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8079 cd/sqm



TEST NUMBER: P937517

CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	0.6
10°-20°	528.5	2.8
20°-30°	924.4	4.9
30°-40°	1190.0	6.2
40°-50°	1329.2	7.0
50°-60°	1273.1	6.7
60°-70°	1008.9	5.3
70°-80°	593.2	3.1
80°-90°	171.8	0.9
90°-100°	895.4	4.7
100°-110°	2354.1	12.4
110°-120°	2441.0	12.8
120°-130°	1958.0	10.3
130°-140°	1536.3	8.1
140°-150°	1179.2	6.2
150°-160°	849.2	4.5
160°-170°	519.6	2.7
170°-180°	175.5	0.9
0°-30°	1572.2	8.3
0°-40°	2762.2	14.5
0°-60°	5364.4	28.2
0°-90°	7138.4	37.5
90°-120°	5690.5	29.9
90°-150°	10364.0	54.4
90°-180°	11908.0	62.5
0°-180°	19046.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	898	963	1085	1227	1272	83
15°	673	1242	2093	2537	2617	187
25°	430	1408	2493	2602	2606	198
35°	290	1346	2348	2481	2579	181
45°	199	1073	2075	2377	2484	154
55°	142	682	1761	2045	2102	130
65°	113	362	1307	1470	1491	112
75°	83	222	717	788	791	87
85°	30	68	178	196	199	31
90°	12	34	94	47	47	12
95°	118	464	1542	795	541	131
105°	424	642	2603	3951	3686	450
115°	753	915	2085	4158	4746	744
125°	1048	1175	1896	3204	3780	930
135°	1249	1375	1837	2586	2933	966
145°	1449	1541	1814	2207	2379	908
155°	1637	1683	1814	1991	2049	752
165°	1767	1790	1814	1885	1908	499
175°	1837	1837	1826	1849	1849	174
180°	1837	1837	1837	1837	1837	



TEST NUMBER: P937517

CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8
2.5°	921.8	921.8	927.7	930.7	936.6	939.6	945.5	951.4	969.2	972.2	978.1
5°	898.1	909.9	948.5	963.3	1004.8	1061.1	1084.8	1123.5	1203.5	1227.2	1242.0
7.5°	862.5	889.2	984.0	1007.8	1111.5	1259.8	1322.0	1405.0	1532.5	1594.7	1645.1
10°	806.2	862.5	1031.5	1087.8	1256.8	1482.1	1597.7	1713.3	1906.0	1991.9	2024.5
12.5°	744.0	835.8	1081.9	1159.0	1402.1	1731.1	1870.4	1997.8	2217.2	2332.8	2350.6
15°	672.8	797.3	1129.4	1242.0	1556.2	1938.6	2092.7	2249.8	2454.3	2537.3	2558.0
17.5°	610.6	767.7	1173.8	1292.4	1674.8	2125.3	2282.4	2412.8	2578.8	2635.1	2649.9
20°	533.5	720.3	1203.5	1357.6	1799.2	2261.6	2412.8	2513.6	2626.2	2661.8	2667.7
22.5°	477.2	669.9	1221.3	1381.3	1882.2	2344.6	2472.1	2552.1	2629.2	2641.0	2644.0
25°	429.8	613.5	1218.3	1408.0	1953.4	2395.0	2492.8	2552.1	2596.6	2602.5	2602.5
27.5°	385.3	551.3	1206.4	1413.9	2006.7	2406.9	2483.9	2525.4	2546.2	2558.0	2558.0
30°	346.8	492.0	1176.8	1402.1	2030.4	2395.0	2457.3	2478.0	2498.8	2516.5	2525.4
32.5°	317.1	435.7	1132.3	1378.4	2033.4	2365.4	2409.8	2421.7	2451.3	2492.8	2507.6
35°	290.5	379.4	1081.9	1345.8	2015.6	2317.9	2347.6	2359.4	2418.7	2481.0	2501.7
37.5°	263.8	337.9	1016.7	1289.4	1988.9	2261.6	2282.4	2303.1	2395.0	2469.1	2492.8
40°	237.1	302.3	939.6	1227.2	1947.4	2193.5	2211.2	2243.8	2365.4	2451.3	2475.0
42.5°	216.4	272.7	856.6	1162.0	1894.1	2116.4	2143.1	2190.5	2329.8	2421.7	2448.4
45°	198.6	243.0	767.7	1073.0	1825.9	2036.4	2074.9	2140.1	2288.3	2377.2	2400.9
47.5°	180.8	222.3	675.8	981.1	1751.8	1956.3	2006.7	2080.8	2232.0	2317.9	2338.7
50°	166.0	201.6	583.9	883.3	1671.8	1870.4	1929.7	2006.7	2160.9	2240.9	2267.6
52.5°	154.1	183.8	498.0	785.5	1579.9	1781.5	1849.6	1929.7	2074.9	2152.0	2169.7
55°	142.3	168.9	423.9	681.7	1485.1	1686.6	1760.7	1837.8	1980.1	2045.3	2057.1
57.5°	136.3	157.1	361.6	583.9	1384.3	1579.9	1662.9	1734.0	1867.4	1917.8	1929.7
60°	127.5	148.2	314.2	500.9	1274.6	1479.1	1550.3	1621.4	1734.0	1775.5	1784.4
62.5°	118.6	142.3	278.6	420.9	1162.0	1360.6	1431.7	1496.9	1591.8	1621.4	1633.3
65°	112.6	136.3	251.9	361.6	1046.3	1236.1	1307.2	1363.5	1440.6	1470.2	1476.2
67.5°	106.7	130.4	231.2	311.2	930.7	1111.5	1165.0	1218.3	1277.6	1307.2	1310.2
70°	97.8	124.5	213.4	275.7	812.1	969.2	1013.7	1070.0	1117.4	1132.3	1141.2
72.5°	91.9	115.6	201.6	249.0	690.6	832.9	874.4	907.0	948.5	963.3	963.3
75°	83.0	103.7	189.7	222.3	566.1	681.7	717.3	749.9	782.5	788.4	779.5
77.5°	74.1	91.9	163.0	186.7	441.6	539.4	569.1	586.9	613.5	619.5	622.4
80°	62.2	80.0	127.5	145.2	320.1	397.2	417.9	432.7	456.5	456.5	462.4
82.5°	47.4	62.2	91.9	103.7	216.4	272.7	290.5	299.4	314.2	314.2	314.2
85°	29.6	38.5	59.3	68.2	130.4	166.0	177.8	180.8	192.7	195.6	195.6
87.5°	14.8	20.7	38.5	41.5	68.2	86.0	86.0	91.9	91.9	88.9	86.0
90°	12.4	22.2	32.0	34.5	54.2	80.5	93.7	83.3	62.4	46.8	46.8
92.5°	49.3	133.1	217.0	237.9	334.5	463.3	527.7	462.5	332.1	234.3	225.0
95°	118.4	271.8	425.2	463.6	823.1	1302.6	1542.3	1376.3	1044.2	795.1	766.9
97.5°	204.6	340.0	475.3	509.2	1108.7	1908.1	2307.9	2202.9	1993.1	1835.7	1782.1
100°	271.2	393.9	516.6	547.4	1212.7	2099.8	2543.4	2551.1	2566.4	2577.9	2514.0
102.5°	327.9	442.4	556.9	585.6	1260.4	2160.2	2610.0	2743.7	3011.0	3211.6	3156.8
105°	424.1	521.1	618.1	642.3	1295.8	2167.0	2602.6	2902.3	3501.8	3951.3	3921.9
107.5°	522.8	613.2	703.6	726.2	1302.3	2070.5	2454.6	2872.7	3708.9	4335.9	4343.1
110°	589.3	671.0	752.6	773.0	1292.4	1985.0	2331.3	2798.7	3733.5	4434.5	4465.3



TEST NUMBER: P937517

CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	654.6	732.5	810.3	829.7	1292.9	1910.4	2219.1	2697.5	3654.2	4371.7	4418.8
115°	753.3	825.1	896.8	914.8	1304.8	1824.7	2084.8	2545.6	3467.2	4158.4	4223.7
117.5°	850.7	915.9	981.1	997.4	1329.1	1771.2	1992.3	2408.2	3239.9	3863.8	3936.2
120°	907.4	968.7	1030.2	1045.5	1348.8	1753.2	1955.4	2335.3	3095.3	3665.3	3735.7
122.5°	962.9	1024.9	1086.7	1102.2	1377.2	1743.7	1927.0	2269.1	2953.5	3466.8	3536.2
125°	1048.0	1104.4	1160.8	1174.9	1415.3	1735.9	1896.2	2186.8	2768.2	3204.2	3268.1
127.5°	1116.9	1173.9	1230.9	1245.2	1453.5	1731.4	1870.3	2119.9	2619.0	2993.3	3047.3
130°	1154.0	1215.3	1276.7	1292.0	1481.5	1734.1	1860.4	2082.6	2527.0	2860.3	2910.2
132.5°	1192.2	1253.6	1314.9	1330.2	1504.0	1735.8	1851.7	2050.6	2448.5	2746.8	2791.5
135°	1248.9	1304.8	1360.7	1374.6	1528.7	1734.2	1837.0	2003.6	2336.6	2586.5	2625.0
137.5°	1306.8	1362.2	1417.5	1431.3	1565.7	1744.9	1834.5	1975.3	2257.0	2468.2	2499.7
140°	1354.9	1405.9	1456.8	1469.6	1588.3	1746.7	1825.8	1947.4	2190.8	2373.3	2402.7
142.5°	1391.9	1439.0	1486.1	1497.9	1607.2	1752.9	1825.8	1932.7	2146.4	2306.7	2332.0
145°	1448.6	1489.7	1530.8	1541.1	1631.9	1753.0	1813.6	1900.9	2075.7	2206.8	2226.0
147.5°	1505.3	1545.3	1585.3	1595.3	1668.0	1765.1	1813.6	1882.3	2019.9	2123.0	2138.9
150°	1542.3	1578.4	1614.6	1623.7	1687.0	1771.4	1813.6	1871.7	1987.8	2074.9	2087.7
152.5°	1580.5	1607.9	1635.3	1642.2	1699.3	1775.4	1813.6	1863.2	1962.3	2036.7	2046.3
155°	1637.2	1657.5	1677.8	1682.9	1726.4	1784.5	1813.6	1853.0	1931.8	1991.0	1997.4
157.5°	1679.1	1698.9	1718.6	1723.6	1753.6	1793.6	1813.6	1844.2	1905.6	1951.6	1956.1
160°	1707.5	1722.9	1738.2	1742.0	1765.9	1797.7	1813.6	1839.9	1892.4	1931.8	1934.4
162.5°	1735.8	1747.3	1758.8	1761.7	1779.0	1802.0	1813.6	1835.7	1880.1	1913.4	1915.8
165°	1766.6	1777.0	1787.5	1790.1	1797.9	1808.3	1813.6	1829.5	1861.2	1885.0	1887.6
167.5°	1795.0	1799.9	1804.9	1806.2	1812.7	1821.5	1825.8	1836.3	1857.1	1872.8	1873.8
170°	1813.6	1818.5	1823.5	1824.6	1825.0	1825.5	1825.8	1836.3	1857.1	1872.8	1872.8
172.5°	1823.4	1824.4	1825.5	1825.8	1825.8	1825.8	1825.8	1834.0	1850.5	1862.9	1861.9
175°	1837.0	1837.0	1837.0	1837.0	1833.2	1828.3	1825.8	1831.1	1841.4	1849.2	1849.2
177.5°	1837.0	1837.0	1837.0	1837.0	1834.1	1830.3	1828.3	1832.4	1840.6	1846.8	1845.7
180°	1837.0	1837.0	1837.0	1837.0	1837.0	1837.0	1837.0	1837.0	1837.0	1837.0	1837.0



TEST NUMBER: P937517

CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	921.8	921.8
2.5°	984.0	978.1
5°	1265.7	1271.7
7.5°	1704.4	1701.4
10°	2119.4	2146.0
12.5°	2421.7	2427.6
15°	2605.5	2617.3
17.5°	2676.6	2679.6
20°	2679.6	2673.6
22.5°	2647.0	2641.0
25°	2608.4	2605.5
27.5°	2572.9	2575.8
30°	2558.0	2566.9
32.5°	2558.0	2572.9
35°	2564.0	2578.8
37.5°	2561.0	2578.8
40°	2549.1	2569.9
42.5°	2516.5	2531.4
45°	2466.1	2483.9
47.5°	2400.9	2412.8
50°	2317.9	2329.8
52.5°	2214.2	2217.2
55°	2089.7	2101.6
57.5°	1956.3	1959.3
60°	1808.1	1817.0
62.5°	1651.0	1651.0
65°	1485.1	1491.0
67.5°	1313.2	1328.0
70°	1138.3	1141.2
72.5°	966.3	966.3
75°	788.4	791.4
77.5°	619.5	619.5
80°	459.4	462.4
82.5°	317.1	323.1
85°	198.6	198.6
87.5°	91.9	83.0
90°	46.8	46.8
92.5°	187.6	150.4
95°	654.1	541.2
97.5°	1567.3	1352.5
100°	2258.1	2002.2
102.5°	2937.6	2718.5
105°	3804.0	3686.2
107.5°	4371.6	4400.1
110°	4588.0	4710.8



TEST NUMBER: P937517

CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4607.3	4795.9
115°	4485.1	4746.5
117.5°	4226.1	4516.0
120°	4017.3	4299.0
122.5°	3814.0	4091.8
125°	3524.0	3779.9
127.5°	3263.3	3479.1
130°	3109.5	3309.0
132.5°	2970.1	3148.8
135°	2778.9	2933.0
137.5°	2625.7	2751.8
140°	2520.6	2638.4
142.5°	2433.3	2534.7
145°	2302.7	2379.4
147.5°	2202.4	2266.0
150°	2139.3	2190.8
152.5°	2085.3	2124.2
155°	2023.2	2049.0
157.5°	1974.2	1992.3
160°	1944.9	1955.4
162.5°	1925.7	1935.6
165°	1898.0	1908.4
167.5°	1878.2	1882.5
170°	1872.8	1872.8
172.5°	1858.0	1854.2
175°	1849.2	1849.2
177.5°	1841.3	1837.0
180°	1837.0	1837.0



TEST NUMBER: P937517
 CATALOG NUMBER: SQ4-FB-100U-075D-840-1D-UNV-STD-W-12

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	3.38	4.17	4.43	5.23	6.66	16.58	17.36	17.63	18.42	19.86
	3H	4.08	4.79	5.14	5.86	7.31	18.41	19.12	19.47	20.19	21.64
	4H	4.38	5.05	5.45	6.12	7.58	19.06	19.73	20.13	20.80	22.26
	6H	4.62	5.24	5.70	6.31	7.79	19.49	20.11	20.57	21.18	22.66
	8H	4.69	5.28	5.77	6.37	7.83	19.61	20.20	20.70	21.29	22.76
	12H	4.70	5.26	5.79	6.35	7.84	19.68	20.24	20.77	21.32	22.81
4H	2H	10.60	11.27	11.68	12.34	13.80	16.84	17.51	17.92	18.58	20.04
	3H	12.16	12.72	13.24	13.81	15.29	18.88	19.44	19.97	20.54	22.02
	4H	12.25	12.76	13.34	13.85	15.35	19.65	20.16	20.74	21.25	22.75
	6H	12.25	12.70	13.35	13.81	15.30	20.19	20.63	21.29	21.74	23.23
	8H	12.23	12.64	13.33	13.75	15.25	20.35	20.77	21.45	21.87	23.37
	12H	12.18	12.56	13.30	13.67	15.18	20.44	20.82	21.56	21.93	23.45
8H	4H	13.69	14.10	14.79	15.21	16.71	19.70	20.12	20.80	21.22	22.73
	6H	13.93	14.27	15.05	15.42	16.92	20.33	20.68	21.46	21.82	23.32
	8H	13.94	14.24	15.07	15.37	16.89	20.56	20.86	21.68	21.98	23.50
	12H	13.91	14.17	15.04	15.30	16.85	20.70	20.96	21.83	22.09	23.64
12H	4H	13.83	14.20	14.95	15.32	16.83	19.65	20.03	20.77	21.14	22.65
	6H	14.19	14.49	15.32	15.61	17.14	20.32	20.62	21.45	21.74	23.26
	8H	14.25	14.52	15.39	15.64	17.20	20.54	20.81	21.68	21.93	23.49