

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: P937797

Luminaire Tested: SQ4-FB-100U-125D-B35-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

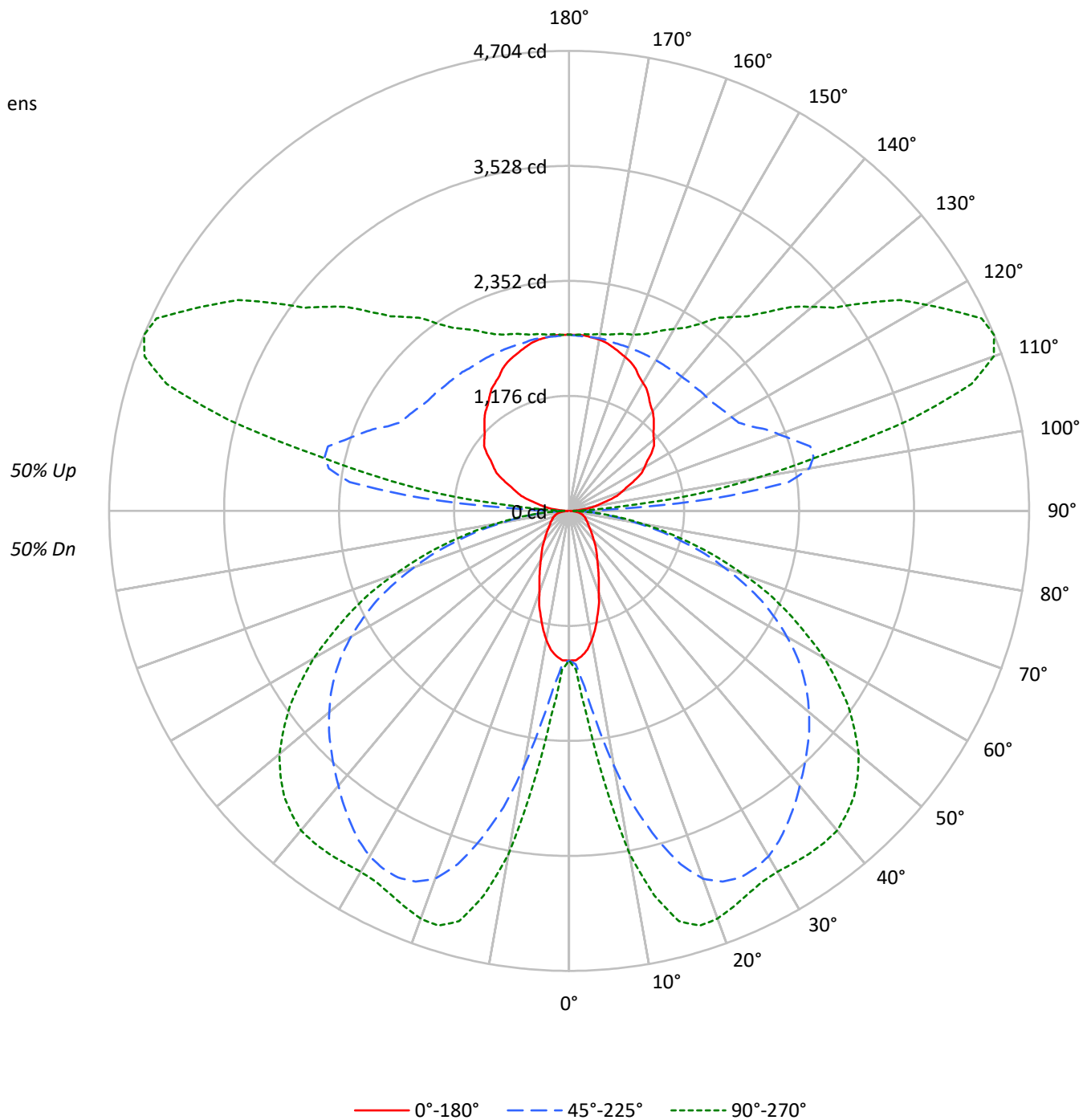
Test Method: LM-79-2019  
Report Number: P937797  
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-B35-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23521.5 lumens  
Efficiency: N/A  
Efficacy: 114.0 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 (A<sub>in</sub>): 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				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	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4732	4732	4732
5°	4624	5471	6361
10°	4197	7977	10545
15°	3568	10424	12733
20°	2906	12082	12977
25°	2425	12647	12713
30°	2046	12730	12689
35°	1810	12522	13017
40°	1578	12251	13357
45°	1430	12053	13409
50°	1313	11876	13187
55°	1258	11615	12602
60°	1290	11110	11679
65°	1344	10340	10411
70°	1435	9024	8795
75°	1596	7364	6864
80°	1757	5113	4625
85°	1594	2718	2367

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13409 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.9	0.8
10°-20°	877.1	3.7
20°-30°	1534.2	6.5
30°-40°	1974.9	8.4
40°-50°	2205.9	9.4
50°-60°	2112.8	9.0
60°-70°	1674.4	7.1
70°-80°	984.6	4.2
80°-90°	280.4	1.2
90°-100°	878.2	3.7
100°-110°	2308.8	9.8
110°-120°	2394.0	10.2
120°-130°	1920.3	8.2
130°-140°	1506.8	6.4
140°-150°	1156.5	4.9
150°-160°	832.9	3.5
160°-170°	509.6	2.2
170°-180°	172.2	0.7
0°-30°	2609.2	11.1
0°-40°	4584.1	19.5
0°-60°	8902.9	37.8
0°-90°	11842.2	50.3
90°-120°	5581.1	23.7
90°-150°	10164.6	43.2
90°-180°	11679.0	49.7
0°-180°	23521.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1490	1599	1800	2037	2110	138
15°	1117	2061	3473	4211	4344	311
25°	713	2337	4137	4319	4324	329
35°	482	2233	3896	4118	4280	301
45°	330	1781	3444	3945	4122	255
55°	236	1131	2922	3394	3488	215
65°	187	600	2169	2440	2474	185
75°	138	369	1190	1308	1314	144
85°	49	113	295	325	330	52
90°	12	34	92	46	46	13
95°	116	455	1513	780	531	129
105°	416	630	2552	3875	3615	441
115°	739	897	2045	4078	4655	730
125°	1028	1152	1860	3143	3707	913
135°	1225	1348	1802	2537	2877	948
145°	1421	1511	1779	2164	2334	890
155°	1606	1650	1779	1953	2010	738
165°	1733	1756	1779	1849	1872	489
175°	1802	1802	1791	1814	1814	171
180°	1802	1802	1802	1802	1802	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0
2.5°	1530.0	1530.0	1539.7	1544.7	1554.5	1559.4	1569.3	1579.1	1608.6	1613.6	1623.4
5°	1490.5	1510.2	1574.1	1598.8	1667.6	1761.2	1800.5	1864.5	1997.2	2036.6	2061.2
7.5°	1431.5	1475.8	1633.2	1672.6	1844.8	2090.7	2194.0	2331.8	2543.3	2646.6	2730.3
10°	1338.1	1431.5	1711.9	1805.3	2085.8	2459.6	2651.5	2843.3	3163.1	3305.7	3359.9
12.5°	1234.8	1387.2	1795.6	1923.5	2326.9	2872.9	3104.1	3315.6	3679.7	3871.5	3901.0
15°	1116.7	1323.3	1874.2	2061.2	2582.7	3217.3	3473.0	3733.8	4073.2	4211.0	4245.4
17.5°	1013.4	1274.1	1948.1	2144.8	2779.4	3527.2	3787.9	4004.3	4279.8	4373.3	4397.9
20°	885.5	1195.4	1997.2	2253.0	2986.1	3753.4	4004.3	4171.5	4358.6	4417.6	4427.4
22.5°	792.0	1111.7	2026.8	2292.4	3123.8	3891.2	4102.7	4235.5	4363.4	4383.1	4388.0
25°	713.3	1018.3	2021.8	2336.6	3241.8	3974.8	4137.1	4235.5	4309.3	4319.1	4319.1
27.5°	639.5	915.0	2002.1	2346.5	3330.4	3994.5	4122.4	4191.2	4225.7	4245.4	4245.4
30°	575.6	816.6	1952.9	2326.9	3369.7	3974.8	4078.1	4112.5	4147.0	4176.5	4191.2
32.5°	526.4	723.2	1879.2	2287.5	3374.6	3925.6	3999.5	4019.1	4068.2	4137.1	4161.8
35°	482.1	629.7	1795.6	2233.4	3345.2	3846.9	3896.1	3915.8	4014.2	4117.5	4151.9
37.5°	437.8	560.8	1687.3	2139.9	3300.9	3753.4	3787.9	3822.3	3974.8	4097.8	4137.1
40°	393.5	501.7	1559.4	2036.6	3232.0	3640.3	3669.8	3724.0	3925.6	4068.2	4107.6
42.5°	359.1	452.6	1421.7	1928.4	3143.4	3512.4	3556.7	3635.4	3866.6	4019.1	4063.4
45°	329.6	403.4	1274.1	1780.8	3030.3	3379.6	3443.5	3551.8	3797.7	3945.3	3984.6
47.5°	300.1	369.0	1121.6	1628.3	2907.3	3246.7	3330.4	3453.3	3704.3	3846.9	3881.3
50°	275.5	334.5	969.1	1466.0	2774.5	3104.1	3202.4	3330.4	3586.2	3719.0	3763.3
52.5°	255.8	305.0	826.5	1303.6	2622.0	2956.5	3069.7	3202.4	3443.5	3571.4	3600.9
55°	236.1	280.4	703.5	1131.4	2464.6	2799.1	2922.1	3050.0	3286.1	3394.3	3414.0
57.5°	226.3	260.8	600.2	969.1	2297.3	2622.0	2759.7	2877.8	3099.2	3182.8	3202.4
60°	211.5	245.9	521.4	831.4	2115.3	2454.8	2572.8	2690.9	2877.8	2946.6	2961.5
62.5°	196.8	236.1	462.4	698.6	1928.4	2258.0	2376.0	2484.2	2641.7	2690.9	2710.6
65°	186.9	226.3	418.1	600.2	1736.5	2051.4	2169.4	2262.9	2390.8	2439.9	2449.8
67.5°	177.1	216.5	383.7	516.6	1544.7	1844.8	1933.3	2021.8	2120.3	2169.4	2174.3
70°	162.3	206.6	354.2	457.5	1347.9	1608.6	1682.4	1775.9	1854.6	1879.2	1893.9
72.5°	152.5	191.9	334.5	413.2	1146.2	1382.4	1451.2	1505.3	1574.1	1598.8	1598.8
75°	137.7	172.2	314.8	369.0	939.5	1131.4	1190.5	1244.6	1298.7	1308.5	1293.8
77.5°	123.0	152.5	270.5	309.9	733.0	895.4	944.5	974.0	1018.3	1028.1	1033.1
80°	103.3	132.8	211.5	241.1	531.3	659.2	693.6	718.2	757.6	757.6	767.4
82.5°	78.7	103.3	152.5	172.2	359.1	452.6	482.1	496.8	521.4	521.4	521.4
85°	49.2	64.0	98.4	113.2	216.5	275.5	295.2	300.1	319.8	324.7	324.7
87.5°	24.6	34.4	64.0	68.9	113.2	142.6	142.6	152.5	152.5	147.6	142.6
90°	12.1	21.8	31.4	33.8	53.2	79.0	91.9	81.7	61.2	45.9	45.9
92.5°	48.4	130.5	212.8	233.3	328.1	454.4	517.5	453.6	325.7	229.7	220.6
95°	116.1	266.6	417.1	454.7	807.3	1277.5	1512.6	1349.8	1024.1	779.9	752.1
97.5°	200.7	333.4	466.2	499.4	1087.4	1871.4	2263.5	2160.6	1954.8	1800.4	1747.8
100°	266.0	386.3	506.7	536.8	1189.4	2059.4	2494.5	2502.1	2517.1	2528.3	2465.6
102.5°	321.6	433.9	546.2	574.3	1236.2	2118.6	2559.8	2690.9	2953.1	3149.8	3096.1
105°	416.0	511.1	606.2	629.9	1270.8	2125.3	2552.5	2846.5	3434.4	3875.3	3846.4
107.5°	512.7	601.4	690.0	712.2	1277.2	2030.6	2407.4	2817.5	3637.5	4252.6	4259.5
110°	578.0	658.0	738.1	758.1	1267.5	1946.8	2286.5	2744.9	3661.7	4349.3	4379.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	642.1	718.4	794.7	813.8	1268.0	1873.7	2176.5	2645.7	3583.9	4287.6	4333.9
115°	738.8	809.2	879.6	897.2	1279.7	1789.6	2044.7	2496.6	3400.5	4078.4	4142.5
117.5°	834.3	898.3	962.2	978.2	1303.5	1737.1	1954.0	2361.8	3177.6	3789.5	3860.5
120°	889.9	950.1	1010.4	1025.4	1322.9	1719.5	1917.7	2290.4	3035.8	3594.8	3663.9
122.5°	944.4	1005.1	1065.8	1081.0	1350.7	1710.2	1889.9	2225.5	2896.7	3400.1	3468.2
125°	1027.8	1083.1	1138.5	1152.3	1388.1	1702.5	1859.7	2144.8	2714.9	3142.6	3205.3
127.5°	1095.5	1151.4	1207.3	1221.2	1425.6	1698.1	1834.3	2079.1	2568.6	2935.8	2988.7
130°	1131.8	1192.0	1252.1	1267.2	1453.0	1700.8	1824.6	2042.6	2478.4	2805.3	2854.2
132.5°	1169.3	1229.5	1289.6	1304.7	1475.1	1702.4	1816.1	2011.2	2401.4	2694.0	2737.8
135°	1224.9	1279.7	1334.5	1348.2	1499.3	1700.9	1801.7	1965.0	2291.7	2536.7	2574.5
137.5°	1281.7	1336.0	1390.2	1403.8	1535.6	1711.4	1799.2	1937.3	2213.6	2420.8	2451.7
140°	1328.9	1378.9	1428.8	1441.3	1557.8	1713.1	1790.7	1910.0	2148.7	2327.6	2356.5
142.5°	1365.1	1411.3	1457.6	1469.1	1576.3	1719.2	1790.7	1895.6	2105.2	2262.3	2287.1
145°	1420.7	1461.1	1501.4	1511.4	1600.5	1719.3	1778.7	1864.4	2035.8	2164.4	2183.2
147.5°	1476.4	1515.6	1554.9	1564.6	1636.0	1731.1	1778.7	1846.1	1981.0	2082.2	2097.8
150°	1512.6	1548.1	1583.5	1592.5	1654.6	1737.3	1778.7	1835.7	1949.5	2035.0	2047.6
152.5°	1550.1	1577.0	1603.9	1610.6	1666.6	1741.3	1778.7	1827.3	1924.5	1997.5	2007.0
155°	1605.7	1625.6	1645.6	1650.5	1693.2	1750.2	1778.7	1817.4	1894.7	1952.7	1959.0
157.5°	1646.8	1666.2	1685.6	1690.4	1719.9	1759.1	1778.7	1808.7	1868.9	1914.1	1918.5
160°	1674.6	1689.7	1704.8	1708.5	1731.9	1763.1	1778.7	1804.5	1856.0	1894.7	1897.2
162.5°	1702.4	1713.7	1725.0	1727.8	1744.8	1767.4	1778.7	1800.4	1843.9	1876.6	1879.0
165°	1732.7	1742.8	1753.1	1755.6	1763.3	1773.6	1778.7	1794.3	1825.4	1848.8	1851.3
167.5°	1760.5	1765.3	1770.2	1771.4	1777.8	1786.4	1790.7	1801.0	1821.4	1836.7	1837.8
170°	1778.7	1783.5	1788.4	1789.5	1789.9	1790.4	1790.7	1801.0	1821.4	1836.7	1836.7
172.5°	1788.3	1789.4	1790.4	1790.7	1790.7	1790.7	1790.7	1798.8	1814.9	1827.0	1826.1
175°	1801.7	1801.7	1801.7	1801.7	1798.0	1793.1	1790.7	1795.8	1806.0	1813.7	1813.7
177.5°	1801.7	1801.7	1801.7	1801.7	1798.9	1795.1	1793.1	1797.2	1805.2	1811.3	1810.2
180°	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1530.0	1530.0
2.5°	1633.2	1623.4
5°	2100.6	2110.4
7.5°	2828.6	2823.7
10°	3517.3	3561.6
12.5°	4019.1	4028.9
15°	4324.1	4343.7
17.5°	4442.2	4447.0
20°	4447.0	4437.2
22.5°	4393.0	4383.1
25°	4329.0	4324.1
27.5°	4270.0	4274.9
30°	4245.4	4260.1
32.5°	4245.4	4270.0
35°	4255.2	4279.8
37.5°	4250.3	4279.8
40°	4230.7	4265.1
42.5°	4176.5	4201.1
45°	4092.9	4122.4
47.5°	3984.6	4004.3
50°	3846.9	3866.6
52.5°	3674.7	3679.7
55°	3468.1	3487.8
57.5°	3246.7	3251.7
60°	3000.8	3015.5
62.5°	2740.0	2740.0
65°	2464.6	2474.4
67.5°	2179.3	2203.9
70°	1889.1	1893.9
72.5°	1603.7	1603.7
75°	1308.5	1313.5
77.5°	1028.1	1028.1
80°	762.5	767.4
82.5°	526.4	536.2
85°	329.6	329.6
87.5°	152.5	137.7
90°	45.9	45.9
92.5°	184.0	147.5
95°	641.5	530.8
97.5°	1537.1	1326.5
100°	2214.6	1963.7
102.5°	2881.1	2666.2
105°	3730.8	3615.3
107.5°	4287.5	4315.4
110°	4499.7	4620.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4518.7	4703.6
115°	4398.9	4655.2
117.5°	4144.8	4429.1
120°	3940.1	4216.3
122.5°	3740.6	4013.1
125°	3456.2	3707.2
127.5°	3200.5	3412.2
130°	3049.7	3245.4
132.5°	2913.0	3088.2
135°	2725.5	2876.6
137.5°	2575.2	2698.9
140°	2472.1	2587.6
142.5°	2386.6	2486.0
145°	2258.4	2333.6
147.5°	2160.1	2222.4
150°	2098.2	2148.7
152.5°	2045.2	2083.4
155°	1984.3	2009.6
157.5°	1936.3	1954.0
160°	1907.5	1917.7
162.5°	1888.7	1898.4
165°	1861.5	1871.7
167.5°	1842.1	1846.3
170°	1836.7	1836.7
172.5°	1822.3	1818.5
175°	1813.7	1813.7
177.5°	1805.9	1801.7
180°	1801.7	1801.7



TEST NUMBER: P937797  
 CATALOG NUMBER: SQ4-FB-100U-125D-B35-1D-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	6.44	7.35	7.39	8.31	9.58	19.63	20.54	20.58	21.51	22.77
	3H	7.15	7.96	8.11	8.94	10.23	21.48	22.29	22.44	23.27	24.56
	4H	7.45	8.22	8.42	9.20	10.50	22.13	22.90	23.10	23.88	25.18
	6H	7.70	8.41	8.69	9.40	10.71	22.57	23.28	23.55	24.27	25.57
	8H	7.77	8.45	8.76	9.45	10.76	22.69	23.37	23.68	24.38	25.68
	12H	7.79	8.44	8.79	9.43	10.76	22.77	23.41	23.76	24.41	25.74
4H	2H	13.67	14.44	14.65	15.42	16.72	19.91	20.68	20.89	21.66	22.96
	3H	15.24	15.89	16.23	16.90	18.21	21.97	22.61	22.96	23.62	24.93
	4H	15.34	15.93	16.33	16.93	18.26	22.74	23.33	23.74	24.33	25.67
	6H	15.35	15.86	16.36	16.89	18.22	23.29	23.80	24.29	24.82	26.15
	8H	15.33	15.81	16.34	16.83	18.17	23.45	23.93	24.46	24.95	26.29
	12H	15.29	15.72	16.32	16.75	18.10	23.55	23.98	24.58	25.02	26.37
8H	4H	16.79	17.27	17.80	18.29	19.63	22.80	23.28	23.81	24.30	25.64
	6H	17.03	17.43	18.07	18.49	19.83	23.44	23.83	24.47	24.90	26.24
	8H	17.05	17.40	18.10	18.45	19.81	23.66	24.01	24.71	25.06	26.42
	12H	17.02	17.33	18.07	18.37	19.78	23.81	24.12	24.86	25.16	26.57
12H	4H	16.94	17.37	17.97	18.40	19.75	22.76	23.19	23.79	24.23	25.58
	6H	17.30	17.64	18.34	18.69	20.05	23.42	23.77	24.47	24.82	26.18
	8H	17.37	17.67	18.41	18.72	20.12	23.66	23.96	24.71	25.01	26.41