

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: P937378

Luminaire Tested: SQ4-FB-075U-125D-B2750-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

**Test Information**

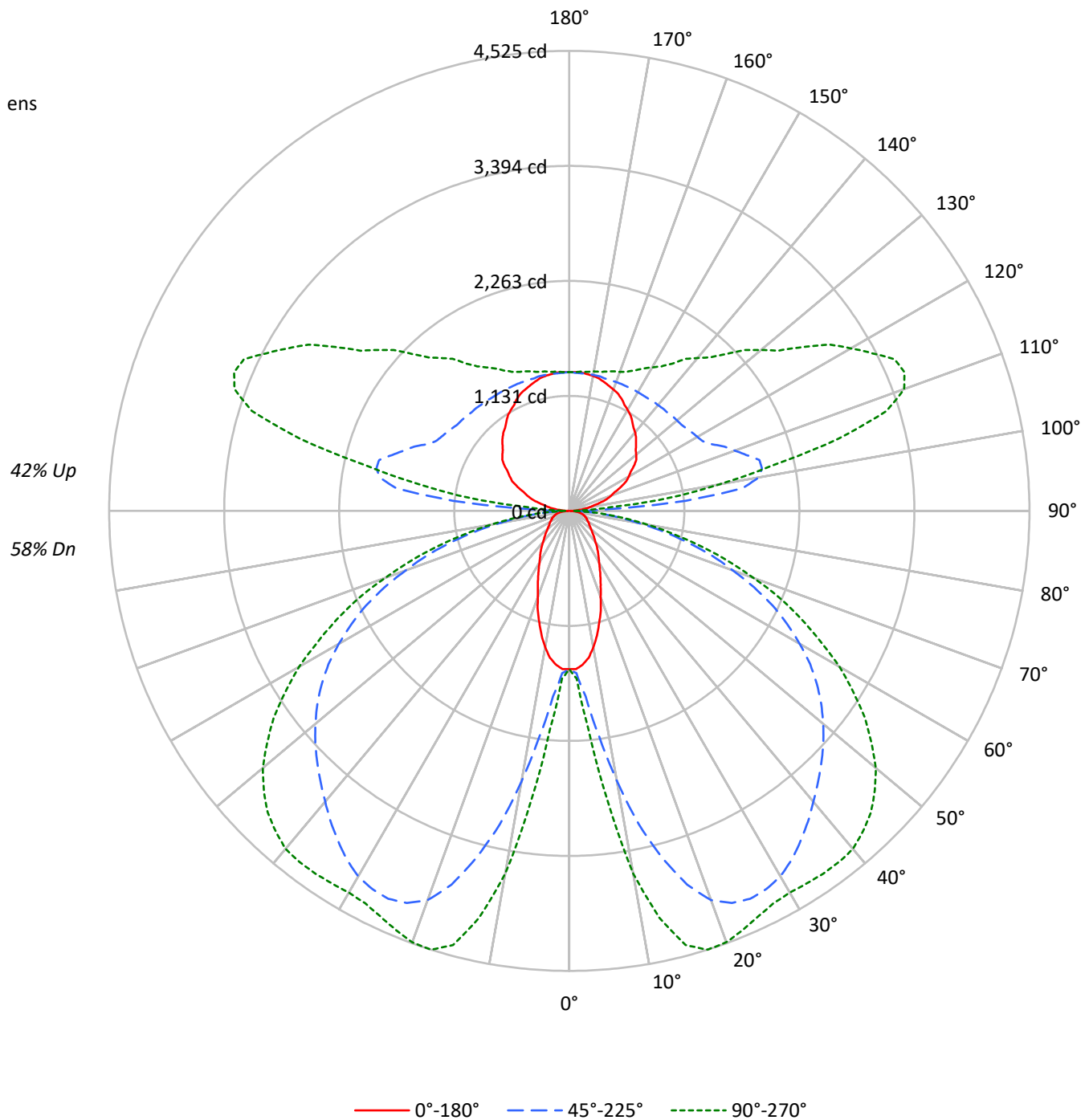
Test Method: LM-79-2019  
Report Number: P937378  
REPORT IS A COMBINATION OF REPORTS P933496 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-125D-B2750-1D-UNV-STD-W-12-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20905.2 lumens  
Efficiency: N/A  
Efficacy: 112.4 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): 186  
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				
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	109	109	109	109	101	101	101	101	88	88	88	75	75	75	63	63	63	58			58
1	99	94	90	86	92	88	84	81	76	73	71	65	63	61	55	53	52	47			47
2	89	82	75	69	83	76	70	65	66	61	57	56	53	50	47	45	43	38			38
3	81	71	63	57	75	66	59	54	57	52	47	49	45	41	41	38	36	32			32
4	74	62	54	48	68	58	51	45	50	45	40	43	39	35	36	33	30	27			27
5	68	55	47	40	63	52	44	38	45	39	34	38	34	30	33	29	26	23			23
6	62	49	41	35	57	46	38	33	40	34	29	34	29	26	29	25	22	19			19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19	17			17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15			15
9	49	36	28	23	46	34	27	22	30	24	20	26	21	17	22	18	15	13			13
10	46	33	26	21	43	31	24	20	27	22	18	24	19	16	20	16	14	12			12

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

	0°	45°	90°
0°	4815	4815	4815
5°	4706	5567	6472
10°	4270	8116	10730
15°	3631	10607	12956
20°	2957	12294	13205
25°	2467	12869	12936
30°	2082	12953	12912
35°	1841	12741	13246
40°	1605	12466	13591
45°	1455	12264	13644
50°	1336	12084	13418
55°	1281	11819	12823
60°	1312	11305	11884
65°	1368	10522	10594
70°	1461	9182	8949
75°	1624	7493	6984
80°	1788	5203	4706
85°	1623	2765	2408

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13644 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.4	1.0
10°-20°	892.5	4.3
20°-30°	1561.1	7.5
30°-40°	2009.6	9.6
40°-50°	2244.7	10.7
50°-60°	2149.9	10.3
60°-70°	1703.8	8.1
70°-80°	1001.9	4.8
80°-90°	283.5	1.4
90°-100°	666.0	3.2
100°-110°	1750.9	8.4
110°-120°	1815.5	8.7
120°-130°	1456.3	7.0
130°-140°	1142.6	5.5
140°-150°	877.0	4.2
150°-160°	631.6	3.0
160°-170°	386.5	1.8
170°-180°	130.6	0.6
0°-30°	2655.0	12.7
0°-40°	4664.6	22.3
0°-60°	9059.1	43.3
0°-90°	12048.2	57.6
90°-120°	4232.4	20.2
90°-150°	7708.3	36.9
90°-180°	8857.0	42.4
0°-180°	20905.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1517	1627	1832	2072	2147	140
15°	1136	2097	3534	4285	4420	316
25°	726	2378	4210	4395	4400	334
35°	490	2272	3964	4190	4355	306
45°	335	1812	3504	4014	4195	259
55°	240	1151	2973	3454	3549	219
65°	190	611	2208	2483	2518	189
75°	140	376	1211	1332	1336	147
85°	50	115	300	330	335	53
90°	9	26	70	35	35	11
95°	88	345	1147	591	403	98
105°	315	478	1936	2939	2742	334
115°	560	680	1551	3093	3530	553
125°	779	874	1410	2383	2811	692
135°	929	1022	1366	1924	2181	719
145°	1077	1146	1349	1641	1770	675
155°	1218	1252	1349	1481	1524	560
165°	1314	1331	1349	1402	1419	371
175°	1366	1366	1358	1376	1376	130
180°	1366	1366	1366	1366	1366	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8	1556.8
2.5°	1556.8	1556.8	1566.8	1571.8	1581.7	1586.8	1596.8	1606.8	1636.9	1641.9	1651.8
5°	1516.7	1536.7	1601.8	1626.8	1696.9	1792.1	1832.1	1897.2	2032.2	2072.4	2097.3
7.5°	1456.6	1501.7	1661.9	1701.9	1877.1	2127.4	2232.5	2372.7	2588.0	2693.1	2778.2
10°	1361.6	1456.6	1742.0	1837.0	2122.4	2502.8	2698.0	2893.2	3218.6	3363.7	3418.9
12.5°	1256.5	1411.6	1827.1	1957.2	2367.7	2923.3	3158.6	3373.8	3744.2	3939.5	3969.4
15°	1136.3	1346.5	1907.1	2097.3	2628.0	3273.7	3533.9	3799.3	4144.7	4284.9	4319.9
17.5°	1031.2	1296.5	1982.3	2182.4	2828.1	3589.0	3854.4	4074.5	4354.9	4450.0	4475.1
20°	901.0	1216.3	2032.2	2292.5	3038.5	3819.3	4074.5	4244.7	4435.0	4495.1	4505.0
22.5°	805.9	1131.2	2062.3	2332.6	3178.6	3959.5	4174.7	4309.8	4440.0	4460.0	4465.0
25°	725.8	1036.2	2057.3	2377.6	3298.7	4044.6	4209.7	4309.8	4384.9	4394.9	4394.9
27.5°	650.8	931.1	2037.3	2387.7	3388.8	4064.6	4194.7	4264.7	4299.8	4319.9	4319.9
30°	585.7	830.9	1987.2	2367.7	3428.8	4044.6	4149.7	4184.7	4219.8	4249.8	4264.7
32.5°	535.6	735.9	1912.1	2327.7	3433.8	3994.5	4069.6	4089.6	4139.6	4209.7	4234.8
35°	490.5	640.7	1827.1	2272.5	3403.9	3914.4	3964.4	3984.5	4084.6	4189.7	4224.7
37.5°	445.5	570.6	1716.9	2177.5	3358.8	3819.3	3854.4	3889.4	4044.6	4169.7	4209.7
40°	400.4	510.6	1586.8	2072.4	3288.7	3704.2	3734.2	3789.3	3994.5	4139.6	4179.7
42.5°	365.4	460.6	1446.7	1962.2	3198.6	3574.1	3619.1	3699.2	3934.4	4089.6	4134.7
45°	335.3	410.5	1296.5	1812.1	3083.4	3438.9	3503.9	3614.1	3864.3	4014.5	4054.5
47.5°	305.4	375.5	1141.3	1656.9	2958.3	3303.7	3388.8	3513.9	3769.3	3914.4	3949.4
50°	280.3	340.4	986.1	1491.7	2823.2	3158.6	3258.6	3388.8	3649.1	3784.3	3829.3
52.5°	260.3	310.4	841.0	1326.5	2668.0	3008.4	3123.5	3258.6	3503.9	3634.1	3664.1
55°	240.3	285.3	715.8	1151.3	2507.8	2848.2	2973.4	3103.5	3343.7	3453.9	3473.9
57.5°	230.2	265.3	610.7	986.1	2337.6	2668.0	2808.1	2928.3	3153.5	3238.6	3258.6
60°	215.2	250.2	530.6	846.0	2152.4	2497.8	2617.9	2738.1	2928.3	2998.3	3013.4
62.5°	200.3	240.3	470.5	710.8	1962.2	2297.6	2417.7	2527.8	2688.0	2738.1	2758.1
65°	190.2	230.2	425.5	610.7	1767.0	2087.4	2207.5	2302.6	2432.8	2482.7	2492.8
67.5°	180.2	220.3	390.5	525.6	1571.8	1877.1	1967.2	2057.3	2157.5	2207.5	2212.5
70°	165.2	210.2	360.4	465.5	1371.5	1636.9	1711.9	1807.0	1887.1	1912.1	1927.1
72.5°	155.2	195.2	340.4	420.4	1166.3	1406.6	1476.6	1531.8	1601.8	1626.8	1626.8
75°	140.1	175.2	320.4	375.5	956.0	1151.3	1211.4	1266.4	1321.4	1331.5	1316.5
77.5°	125.1	155.2	275.3	315.3	745.8	911.1	961.1	991.1	1036.2	1046.1	1051.2
80°	105.1	135.2	215.2	245.3	540.6	670.8	705.8	730.8	770.9	770.9	780.9
82.5°	80.1	105.1	155.2	175.2	365.4	460.6	490.5	505.5	530.6	530.6	530.6
85°	50.1	65.1	100.1	115.2	220.3	280.3	300.3	305.4	325.4	330.4	330.4
87.5°	25.0	35.0	65.1	70.1	115.2	145.1	145.1	155.2	155.2	150.2	145.1
90°	9.2	16.5	23.8	25.6	40.3	59.9	69.7	61.9	46.4	34.8	34.8
92.5°	36.7	99.0	161.4	177.0	248.8	344.5	392.4	343.9	247.0	174.2	167.3
95°	88.0	202.1	316.3	344.8	612.2	968.8	1147.1	1023.7	776.7	591.4	570.4
97.5°	152.2	252.9	353.6	378.7	824.7	1419.2	1716.5	1638.4	1482.4	1365.3	1325.4
100°	201.7	293.0	384.3	407.1	902.0	1561.7	1891.6	1897.4	1908.8	1917.4	1869.8
102.5°	243.9	329.1	414.2	435.5	937.4	1606.6	1941.2	2040.6	2239.5	2388.7	2348.0
105°	315.4	387.6	459.7	477.7	963.7	1611.7	1935.7	2158.6	2604.5	2938.9	2917.0
107.5°	388.8	456.0	523.3	540.1	968.6	1540.0	1825.7	2136.7	2758.5	3224.9	3230.2
110°	438.3	499.0	559.8	574.9	961.3	1476.4	1734.0	2081.6	2776.9	3298.3	3321.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	486.9	544.8	602.6	617.1	961.6	1420.9	1650.6	2006.3	2717.9	3251.5	3286.5
115°	560.2	613.6	667.0	680.3	970.4	1357.2	1550.6	1893.3	2578.8	3092.9	3141.5
117.5°	632.7	681.2	729.6	741.8	988.5	1317.3	1481.8	1791.1	2409.7	2873.7	2927.6
120°	674.9	720.6	766.1	777.6	1003.2	1303.9	1454.3	1736.8	2302.1	2726.1	2778.4
122.5°	716.1	762.2	808.2	819.8	1024.3	1296.9	1433.2	1687.6	2196.7	2578.5	2630.2
125°	779.4	821.4	863.4	873.9	1052.7	1291.1	1410.3	1626.5	2058.9	2383.2	2430.8
127.5°	830.8	873.2	915.6	926.1	1081.1	1287.7	1391.0	1576.7	1947.9	2226.4	2266.5
130°	858.3	904.0	949.5	961.0	1101.9	1289.7	1383.7	1548.9	1879.4	2127.3	2164.4
132.5°	886.7	932.4	977.9	989.4	1118.6	1291.1	1377.2	1525.1	1821.0	2043.0	2076.2
135°	928.9	970.4	1012.0	1022.4	1137.1	1289.9	1366.3	1490.1	1737.9	1923.8	1952.4
137.5°	972.0	1013.1	1054.3	1064.6	1164.6	1297.8	1364.4	1469.1	1678.7	1835.7	1859.2
140°	1007.7	1045.6	1083.5	1093.0	1181.3	1299.2	1358.0	1448.5	1629.5	1765.1	1787.0
142.5°	1035.2	1070.3	1105.3	1114.1	1195.4	1303.8	1358.0	1437.5	1596.4	1715.6	1734.5
145°	1077.4	1108.0	1138.5	1146.2	1213.8	1303.8	1348.8	1413.8	1543.9	1641.4	1655.7
147.5°	1119.6	1149.4	1179.2	1186.6	1240.7	1312.8	1348.8	1400.0	1502.3	1579.0	1590.8
150°	1147.1	1174.0	1200.9	1207.7	1254.7	1317.5	1348.8	1392.0	1478.4	1543.2	1552.8
152.5°	1175.5	1195.9	1216.2	1221.4	1263.9	1320.5	1348.8	1385.7	1459.5	1514.8	1522.0
155°	1217.7	1232.8	1247.9	1251.6	1284.1	1327.3	1348.8	1378.2	1436.9	1480.9	1485.7
157.5°	1248.9	1263.6	1278.3	1281.9	1304.2	1334.0	1348.8	1371.6	1417.3	1451.5	1454.8
160°	1270.0	1281.4	1292.8	1295.7	1313.5	1337.0	1348.8	1368.4	1407.5	1436.9	1438.9
162.5°	1291.1	1299.6	1308.1	1310.3	1323.1	1340.3	1348.8	1365.3	1398.3	1423.1	1425.0
165°	1314.0	1321.7	1329.4	1331.4	1337.2	1345.0	1348.8	1360.7	1384.2	1402.0	1404.0
167.5°	1335.0	1338.7	1342.4	1343.3	1348.3	1354.8	1358.0	1365.7	1381.2	1392.8	1393.6
170°	1348.8	1352.5	1356.2	1357.1	1357.4	1357.8	1358.0	1365.7	1381.2	1392.8	1392.8
172.5°	1356.1	1356.9	1357.8	1358.0	1358.0	1358.0	1358.0	1364.1	1376.4	1385.5	1384.8
175°	1366.3	1366.3	1366.3	1366.3	1363.5	1359.9	1358.0	1361.9	1369.7	1375.5	1375.5
177.5°	1366.3	1366.3	1366.3	1366.3	1364.1	1361.3	1359.9	1362.9	1369.1	1373.6	1372.8
180°	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1556.8	1556.8
2.5°	1661.9	1651.8
5°	2137.5	2147.4
7.5°	2878.2	2873.2
10°	3579.0	3624.0
12.5°	4089.6	4099.6
15°	4399.9	4419.9
17.5°	4520.1	4525.0
20°	4525.0	4515.1
22.5°	4470.0	4460.0
25°	4405.0	4399.9
27.5°	4344.9	4349.9
30°	4319.9	4334.9
32.5°	4319.9	4344.9
35°	4329.8	4354.9
37.5°	4324.9	4354.9
40°	4304.9	4339.9
42.5°	4249.8	4274.8
45°	4164.7	4194.7
47.5°	4054.5	4074.5
50°	3914.4	3934.4
52.5°	3739.2	3744.2
55°	3529.0	3549.0
57.5°	3303.7	3308.7
60°	3053.4	3068.4
62.5°	2788.1	2788.1
65°	2507.8	2517.8
67.5°	2217.5	2242.6
70°	1922.2	1927.1
72.5°	1631.8	1631.8
75°	1331.5	1336.5
77.5°	1046.1	1046.1
80°	775.9	780.9
82.5°	535.6	545.7
85°	335.3	335.3
87.5°	155.2	140.1
90°	34.8	34.8
92.5°	139.6	111.9
95°	486.5	402.6
97.5°	1165.6	1005.9
100°	1679.5	1489.2
102.5°	2184.9	2021.9
105°	2829.3	2741.7
107.5°	3251.4	3272.6
110°	3412.3	3503.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3426.7	3567.0
115°	3335.8	3530.3
117.5°	3143.2	3358.8
120°	2988.0	3197.4
122.5°	2836.7	3043.4
125°	2621.1	2811.4
127.5°	2427.1	2587.7
130°	2312.8	2461.2
132.5°	2209.0	2341.9
135°	2067.0	2181.4
137.5°	1952.9	2046.6
140°	1874.7	1962.2
142.5°	1809.9	1885.2
145°	1712.7	1769.7
147.5°	1638.0	1685.4
150°	1591.1	1629.5
152.5°	1551.0	1579.9
155°	1504.8	1524.0
157.5°	1468.4	1481.8
160°	1446.6	1454.3
162.5°	1432.3	1439.7
165°	1411.7	1419.4
167.5°	1397.0	1400.2
170°	1392.8	1392.8
172.5°	1382.0	1379.1
175°	1375.5	1375.5
177.5°	1369.6	1366.3
180°	1366.3	1366.3



TEST NUMBER: P937378  
 CATALOG NUMBER: SQ4-FB-075U-125D-B2750-1D-UNV-STD-W-12-3000K

**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	7.14	8.12	8.02	9.03	10.18	20.33	21.31	21.21	22.22	23.37
	3H	7.85	8.73	8.74	9.65	10.83	22.18	23.07	23.08	23.98	25.16
	4H	8.16	8.99	9.06	9.91	11.10	22.84	23.67	23.74	24.60	25.78
	6H	8.41	9.18	9.33	10.11	11.31	23.28	24.05	24.20	24.98	26.18
	8H	8.48	9.22	9.41	10.17	11.37	23.41	24.14	24.33	25.09	26.29
	12H	8.51	9.21	9.44	10.15	11.37	23.48	24.18	24.41	25.12	26.35
4H	2H	14.38	15.21	15.29	16.13	17.32	20.62	21.45	21.53	22.38	23.56
	3H	15.95	16.65	16.88	17.61	18.81	22.68	23.38	23.60	24.33	25.54
	4H	16.05	16.69	16.99	17.64	18.87	23.46	24.10	24.39	25.04	26.27
	6H	16.07	16.63	17.02	17.60	18.82	24.01	24.56	24.95	25.53	26.76
	8H	16.05	16.57	17.00	17.53	18.78	24.17	24.69	25.13	25.66	26.90
	12H	16.01	16.48	16.98	17.46	18.71	24.28	24.74	25.25	25.73	26.98
8H	4H	17.51	18.03	18.46	19.00	20.24	23.53	24.04	24.48	25.01	26.25
	6H	17.76	18.19	18.74	19.20	20.44	24.16	24.60	25.14	25.60	26.84
	8H	17.78	18.16	18.77	19.16	20.42	24.39	24.77	25.38	25.77	27.03
	12H	17.75	18.09	18.74	19.08	20.38	24.54	24.88	25.53	25.87	27.17
12H	4H	17.66	18.13	18.63	19.11	20.36	23.48	23.95	24.46	24.93	26.18
	6H	18.02	18.40	19.01	19.40	20.66	24.15	24.53	25.14	25.53	26.79
	8H	18.10	18.43	19.09	19.42	20.73	24.39	24.72	25.38	25.71	27.02