

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: P938439

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938439
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

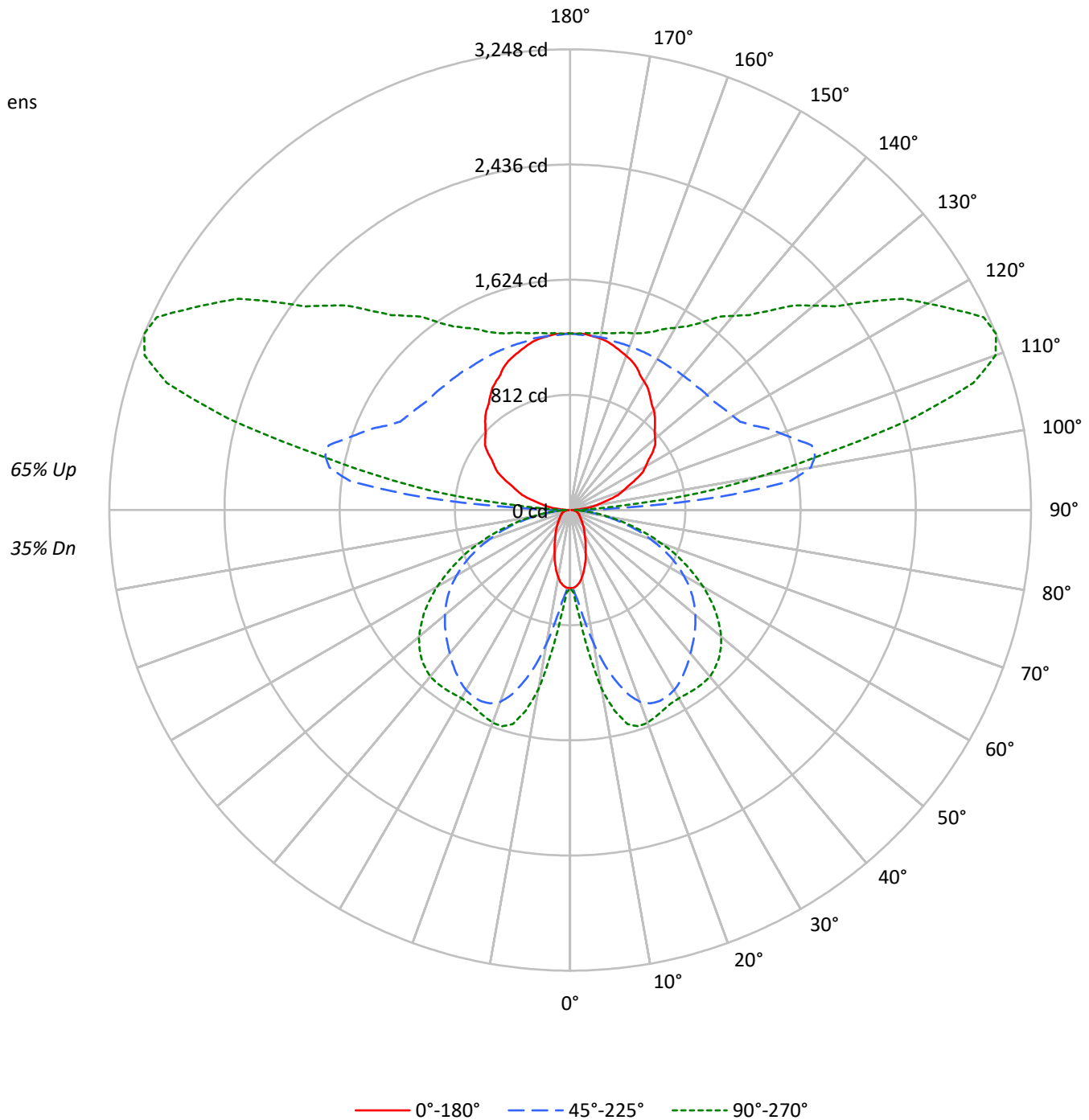
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12327.1 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 108.6
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: P938439
CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P938439

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3403	3403	3403
5°	3324	3932	4575
10°	3013	5731	7584
15°	2561	7486	9158
20°	2083	8673	9333
25°	1737	9073	9143
30°	1465	9128	9126
35°	1294	8975	9363
40°	1127	8774	9606
45°	1020	8628	9644
50°	935	8496	9484
55°	894	8302	9063
60°	915	7934	8400
65°	950	7376	7488
70°	1010	6428	6326
75°	1114	5237	4936
80°	1208	3627	3327
85°	1055	1920	1702

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9644 cd/sqm



TEST NUMBER: P938439

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	0.6
10°-20°	315.4	2.6
20°-30°	551.7	4.5
30°-40°	710.2	5.8
40°-50°	793.3	6.4
50°-60°	759.8	6.2
60°-70°	602.1	4.9
70°-80°	354.1	2.9
80°-90°	103.1	0.8
90°-100°	606.5	4.9
100°-110°	1594.6	12.9
110°-120°	1653.4	13.4
120°-130°	1326.3	10.8
130°-140°	1040.6	8.4
140°-150°	798.7	6.5
150°-160°	575.2	4.7
160°-170°	352.0	2.9
170°-180°	118.9	1.0
0°-30°	938.3	7.6
0°-40°	1648.5	13.4
0°-60°	3201.5	26.0
0°-90°	4260.8	34.6
90°-120°	3854.6	31.3
90°-150°	7020.2	56.9
90°-180°	8066.0	65.4
0°-180°	12327.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	536	575	647	732	759	49
15°	402	741	1249	1514	1562	112
25°	256	840	1488	1553	1555	118
35°	173	803	1401	1481	1539	108
45°	118	640	1238	1419	1482	92
55°	85	407	1051	1221	1254	77
65°	67	216	780	877	890	67
75°	50	133	428	471	472	52
85°	18	41	106	117	118	19
90°	8	23	64	32	32	8
95°	80	314	1045	539	367	89
105°	287	435	1763	2676	2497	305
115°	510	620	1412	2817	3215	504
125°	710	796	1284	2170	2560	630
135°	846	931	1244	1752	1987	655
145°	981	1044	1228	1495	1612	615
155°	1109	1140	1228	1349	1388	510
165°	1197	1212	1228	1277	1293	338
175°	1244	1244	1237	1253	1253	118
180°	1244	1244	1244	1244	1244	



TEST NUMBER: P938439

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1	550.1
2.5°	550.1	550.1	553.7	555.5	559.0	560.7	564.3	567.9	578.4	580.2	583.8
5°	536.0	543.1	566.1	574.9	599.7	633.3	647.4	670.4	718.2	732.4	741.2
7.5°	514.8	530.7	587.3	601.4	663.4	751.9	789.0	838.5	914.6	951.7	981.8
10°	481.1	514.8	615.6	649.2	750.1	884.5	953.5	1022.5	1137.5	1188.8	1208.3
12.5°	444.0	498.9	645.7	691.7	836.7	1033.1	1116.2	1192.3	1323.2	1392.2	1402.8
15°	401.6	475.9	674.0	741.2	928.7	1156.9	1249.0	1342.7	1464.7	1514.2	1526.6
17.5°	364.5	458.2	700.5	771.3	999.5	1268.4	1362.1	1440.0	1539.1	1572.6	1581.5
20°	318.4	429.9	718.2	810.2	1073.8	1349.7	1440.0	1500.1	1567.4	1588.6	1592.1
22.5°	284.8	399.8	728.8	824.3	1123.3	1399.3	1475.3	1523.1	1569.1	1576.2	1578.0
25°	256.5	366.2	727.0	840.3	1165.8	1429.4	1487.7	1523.1	1549.7	1553.2	1553.2
27.5°	229.9	329.0	720.0	843.8	1197.6	1436.4	1482.4	1507.2	1519.6	1526.6	1526.6
30°	207.0	293.7	702.3	836.7	1211.7	1429.4	1466.5	1478.9	1491.3	1501.8	1507.2
32.5°	189.3	260.0	675.7	822.5	1213.5	1411.7	1438.2	1445.2	1462.9	1487.7	1496.6
35°	173.3	226.5	645.7	803.1	1202.9	1383.4	1401.1	1408.1	1443.5	1480.7	1493.0
37.5°	157.5	201.6	606.8	769.5	1187.0	1349.7	1362.1	1374.5	1429.4	1473.5	1487.7
40°	141.5	180.4	560.7	732.4	1162.2	1309.0	1319.6	1339.1	1411.7	1462.9	1477.1
42.5°	129.2	162.7	511.2	693.5	1130.4	1263.1	1278.9	1307.2	1390.4	1445.2	1461.2
45°	118.5	145.1	458.2	640.4	1089.7	1215.3	1238.3	1277.2	1365.6	1418.7	1432.9
47.5°	107.9	132.6	403.4	585.6	1045.4	1167.5	1197.6	1241.8	1332.1	1383.4	1395.7
50°	99.1	120.3	348.5	527.2	997.7	1116.2	1151.7	1197.6	1289.6	1337.3	1353.3
52.5°	92.0	109.7	297.2	468.8	942.9	1063.2	1103.8	1151.7	1238.3	1284.3	1294.9
55°	84.9	100.9	253.0	406.9	886.3	1006.5	1050.8	1096.8	1181.7	1220.6	1227.7
57.5°	81.4	93.7	215.8	348.5	826.1	942.9	992.4	1034.9	1114.4	1144.5	1151.7
60°	76.1	88.5	187.5	298.9	760.7	882.7	925.2	967.6	1034.9	1059.6	1064.9
62.5°	70.8	84.9	166.3	251.2	693.5	811.9	854.4	893.3	949.9	967.6	974.7
65°	67.2	81.4	150.4	215.8	624.5	737.7	780.1	813.7	859.8	877.4	880.9
67.5°	63.6	77.8	138.0	185.8	555.5	663.4	695.2	727.0	762.5	780.1	781.9
70°	58.4	74.3	127.4	164.5	484.7	578.4	605.0	638.6	666.9	675.7	681.1
72.5°	54.8	69.0	120.3	148.6	412.2	497.1	521.8	541.3	566.1	574.9	574.9
75°	49.5	61.9	113.2	132.6	337.9	406.9	428.1	447.6	467.0	470.6	465.2
77.5°	44.2	54.8	97.3	111.5	263.6	322.0	339.6	350.3	366.2	369.7	371.5
80°	37.1	47.8	76.1	86.7	191.0	237.1	249.4	258.2	272.4	272.4	276.0
82.5°	28.3	37.1	54.8	61.9	129.2	162.7	173.3	178.7	187.5	187.5	187.5
85°	17.7	23.0	35.3	40.7	77.8	99.1	106.1	107.9	115.0	116.8	116.8
87.5°	8.8	12.4	23.0	24.7	40.7	51.3	51.3	54.8	54.8	53.1	51.3
90°	8.4	15.1	21.7	23.4	36.8	54.5	63.5	56.4	42.3	31.8	31.8
92.5°	33.4	90.2	147.0	161.2	226.6	313.8	357.4	313.2	224.9	158.7	152.4
95°	80.2	184.1	288.0	314.0	557.6	882.4	1044.7	932.3	707.3	538.6	519.5
97.5°	138.6	230.3	322.0	344.9	751.1	1292.6	1563.3	1492.3	1350.1	1243.5	1207.1
100°	183.7	266.9	350.0	370.8	821.5	1422.4	1722.8	1728.0	1738.5	1746.2	1702.9
102.5°	222.2	299.7	377.3	396.7	853.8	1463.2	1767.9	1858.4	2039.5	2175.4	2138.3
105°	287.2	352.9	418.6	435.1	877.7	1467.8	1762.9	1965.9	2372.0	2676.5	2656.5
107.5°	354.1	415.3	476.6	491.8	882.1	1402.5	1662.7	1945.9	2512.3	2937.1	2941.9
110°	399.2	454.5	509.8	523.6	875.5	1344.6	1579.1	1895.7	2529.0	3003.8	3024.6



TEST NUMBER: P938439

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	443.5	496.1	548.8	562.0	875.7	1294.0	1503.2	1827.2	2475.2	2961.3	2993.2
115°	510.2	558.9	607.5	619.7	883.8	1236.0	1412.1	1724.3	2348.6	2816.8	2861.0
117.5°	576.2	620.4	664.6	675.6	900.3	1199.8	1349.6	1631.3	2194.6	2617.2	2666.3
120°	614.7	656.3	697.9	708.2	913.6	1187.5	1324.5	1581.9	2096.7	2482.7	2530.4
122.5°	652.2	694.2	736.1	746.6	932.8	1181.1	1305.3	1537.1	2000.6	2348.3	2395.3
125°	709.8	748.0	786.3	795.9	958.7	1175.8	1284.4	1481.3	1875.0	2170.4	2213.7
127.5°	756.6	795.1	833.8	843.4	984.6	1172.7	1266.8	1435.9	1774.0	2027.6	2064.2
130°	781.7	823.3	864.9	875.2	1003.6	1174.7	1260.2	1410.7	1711.7	1937.4	1971.2
132.5°	807.6	849.1	890.7	901.1	1018.8	1175.8	1254.3	1389.0	1658.5	1860.6	1890.8
135°	845.9	883.8	921.7	931.2	1035.5	1174.7	1244.3	1357.1	1582.8	1752.0	1778.1
137.5°	885.2	922.7	960.2	969.6	1060.6	1181.9	1242.6	1338.0	1528.8	1671.9	1693.2
140°	917.8	952.3	986.8	995.4	1075.9	1183.2	1236.8	1319.2	1484.0	1607.6	1627.5
142.5°	942.8	974.7	1006.7	1014.6	1088.7	1187.5	1236.8	1309.2	1453.9	1562.4	1579.6
145°	981.3	1009.1	1037.0	1043.9	1105.4	1187.5	1228.4	1287.6	1406.1	1494.9	1507.8
147.5°	1019.6	1046.8	1073.8	1080.6	1129.9	1195.6	1228.4	1275.0	1368.1	1438.0	1448.8
150°	1044.7	1069.2	1093.6	1099.8	1142.6	1199.9	1228.4	1267.8	1346.4	1405.4	1414.2
152.5°	1070.6	1089.2	1107.7	1112.4	1151.0	1202.6	1228.4	1262.0	1329.2	1379.5	1386.1
155°	1109.0	1122.7	1136.5	1139.9	1169.4	1208.8	1228.4	1255.1	1308.6	1348.7	1353.0
157.5°	1137.4	1150.8	1164.2	1167.5	1187.8	1214.9	1228.4	1249.2	1290.8	1322.0	1325.0
160°	1156.7	1167.0	1177.4	1180.0	1196.1	1217.6	1228.4	1246.3	1281.9	1308.6	1310.4
162.5°	1175.8	1183.6	1191.4	1193.3	1205.0	1220.7	1228.4	1243.4	1273.5	1296.1	1297.8
165°	1196.7	1203.8	1210.7	1212.5	1217.8	1224.9	1228.4	1239.2	1260.7	1276.9	1278.7
167.5°	1215.9	1219.2	1222.6	1223.4	1227.9	1233.9	1236.8	1243.9	1258.0	1268.5	1269.2
170°	1228.4	1231.7	1235.1	1235.9	1236.2	1236.6	1236.8	1243.9	1258.0	1268.5	1268.5
172.5°	1235.1	1235.8	1236.6	1236.8	1236.8	1236.8	1236.8	1242.3	1253.5	1261.8	1261.2
175°	1244.3	1244.3	1244.3	1244.3	1241.8	1238.5	1236.8	1240.3	1247.3	1252.6	1252.6
177.5°	1244.3	1244.3	1244.3	1244.3	1242.3	1239.8	1238.4	1241.2	1246.8	1251.0	1250.3
180°	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3	1244.3



TEST NUMBER: P938439

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	550.1	550.1
2.5°	587.3	583.8
5°	755.3	758.9
7.5°	1017.1	1015.4
10°	1264.8	1280.7
12.5°	1445.2	1448.8
15°	1554.9	1562.0
17.5°	1597.4	1599.1
20°	1599.1	1595.6
22.5°	1579.7	1576.2
25°	1556.7	1554.9
27.5°	1535.5	1537.3
30°	1526.6	1531.9
32.5°	1526.6	1535.5
35°	1530.2	1539.1
37.5°	1528.4	1539.1
40°	1521.3	1533.7
42.5°	1501.8	1510.8
45°	1471.8	1482.4
47.5°	1432.9	1440.0
50°	1383.4	1390.4
52.5°	1321.4	1323.2
55°	1247.2	1254.2
57.5°	1167.5	1169.3
60°	1079.1	1084.4
62.5°	985.4	985.4
65°	886.3	889.8
67.5°	783.6	792.5
70°	679.3	681.1
72.5°	576.7	576.7
75°	470.6	472.3
77.5°	369.7	369.7
80°	274.2	276.0
82.5°	189.3	192.8
85°	118.5	118.5
87.5°	54.8	49.5
90°	31.8	31.8
92.5°	127.1	101.8
95°	443.0	366.6
97.5°	1061.6	916.1
100°	1529.6	1356.2
102.5°	1989.8	1841.4
105°	2576.7	2496.9
107.5°	2961.2	2980.5
110°	3107.7	3190.9



TEST NUMBER: P938439
CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3120.9	3248.5
115°	3038.0	3215.1
117.5°	2862.6	3059.0
120°	2721.2	2912.0
122.5°	2583.5	2771.7
125°	2387.0	2560.4
127.5°	2210.4	2356.7
130°	2106.3	2241.4
132.5°	2011.8	2132.8
135°	1882.4	1986.7
137.5°	1778.6	1864.0
140°	1707.3	1787.1
142.5°	1648.3	1717.0
145°	1559.8	1611.7
147.5°	1491.8	1534.9
150°	1449.1	1484.0
152.5°	1412.5	1438.9
155°	1370.4	1387.9
157.5°	1337.3	1349.6
160°	1317.4	1324.5
162.5°	1304.4	1311.1
165°	1285.6	1292.7
167.5°	1272.3	1275.2
170°	1268.5	1268.5
172.5°	1258.6	1256.0
175°	1252.6	1252.6
177.5°	1247.3	1244.3
180°	1244.3	1244.3



TEST NUMBER: P938439
 CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3500K

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	3.65	4.41	4.72	5.49	6.96	16.81	17.58	17.89	18.65	20.13
	3H	4.34	5.03	5.43	6.12	7.61	18.64	19.32	19.72	20.41	21.90
	4H	4.64	5.29	5.73	6.38	7.87	19.28	19.93	20.37	21.01	22.51
	6H	4.88	5.48	5.99	6.57	8.08	19.70	20.30	20.80	21.39	22.90
	8H	4.95	5.52	6.05	6.63	8.13	19.81	20.38	20.92	21.49	22.99
	12H	4.96	5.50	6.07	6.61	8.13	19.88	20.42	20.99	21.52	23.05
4H	2H	10.84	11.49	11.94	12.58	14.08	17.08	17.72	18.18	18.81	20.31
	3H	12.40	12.94	13.51	14.06	15.57	19.11	19.65	20.21	20.76	22.27
	4H	12.49	12.99	13.60	14.10	15.63	19.87	20.36	20.98	21.47	23.00
	6H	12.50	12.93	13.62	14.05	15.58	20.39	20.82	21.51	21.95	23.47
	8H	12.47	12.87	13.59	13.99	15.53	20.55	20.95	21.67	22.07	23.61
	12H	12.42	12.79	13.56	13.92	15.46	20.64	21.00	21.77	22.13	23.68
8H	4H	13.92	14.32	15.04	15.44	16.98	19.92	20.32	21.04	21.44	22.98
	6H	14.16	14.49	15.30	15.66	17.19	20.54	20.87	21.68	22.03	23.57
	8H	14.18	14.47	15.33	15.61	17.17	20.75	21.04	21.90	22.19	23.74
	12H	14.14	14.40	15.29	15.54	17.13	20.89	21.15	22.04	22.28	23.88
12H	4H	14.06	14.42	15.20	15.56	17.10	19.87	20.23	21.00	21.36	22.91
	6H	14.42	14.71	15.57	15.85	17.41	20.52	20.81	21.67	21.95	23.51
	8H	14.48	14.74	15.63	15.88	17.47	20.74	21.00	21.89	22.14	23.73