

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: P937453

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937453
REPORT IS A COMBINATION OF REPORTS P933557 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

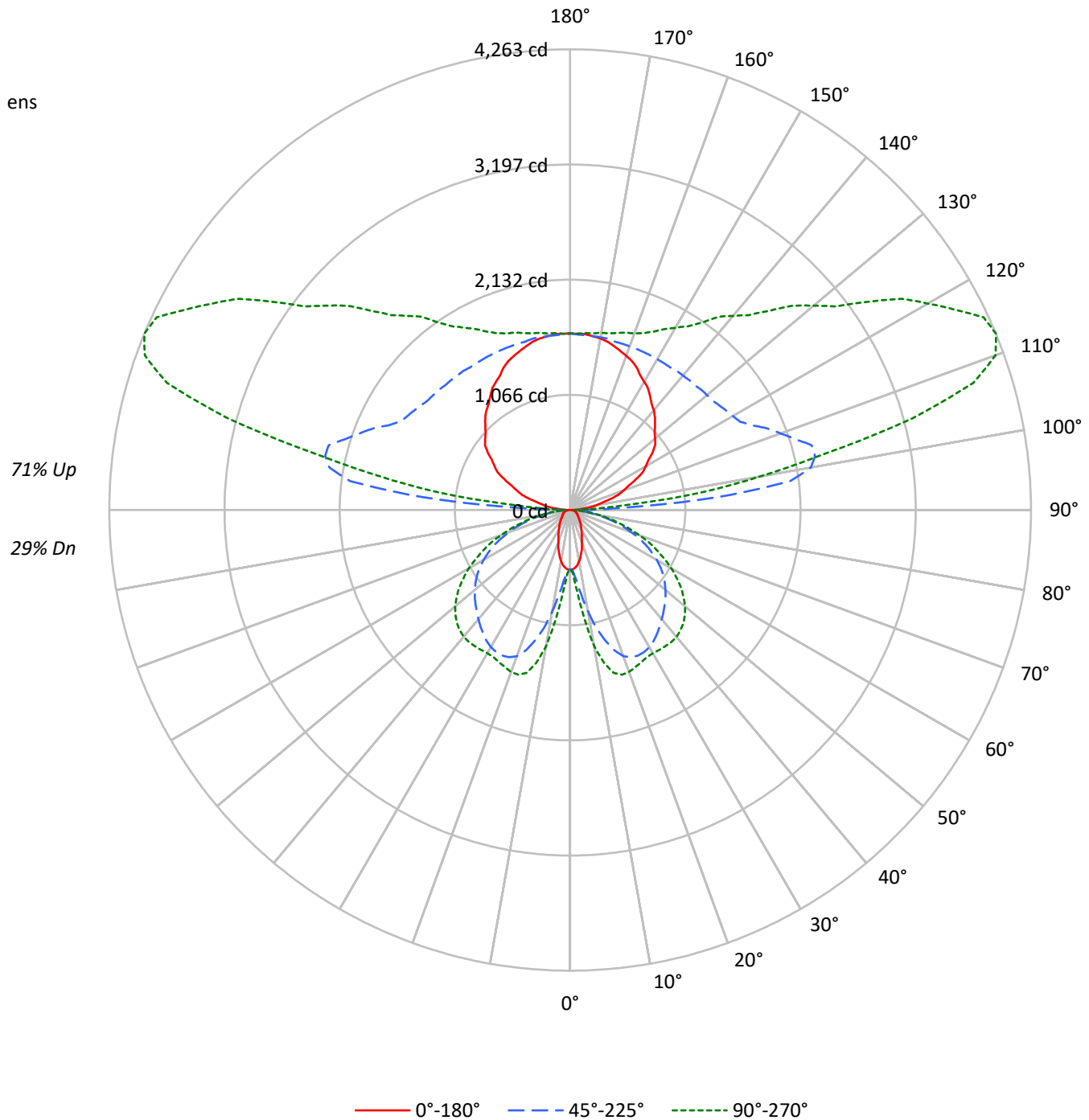
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14844.2 lumens
Efficiency: N/A
Efficacy: 120.1 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): 123.6
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: P937453
CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P937453

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

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	0
RCR																		
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1700	1700	1700
5°	1661	1965	2285
10°	1508	2865	3788
15°	1282	3745	4574
20°	1044	4341	4662
25°	871	4543	4567
30°	735	4573	4558
35°	650	4499	4677
40°	567	4401	4798
45°	514	4330	4817
50°	472	4266	4737
55°	452	4173	4527
60°	463	3991	4196
65°	483	3715	3740
70°	515	3242	3160
75°	573	2645	2465
80°	633	1837	1662
85°	574	976	850

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4817 cd/sqm



TEST NUMBER: P937453

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	0.5
10°-20°	315.1	2.1
20°-30°	551.2	3.7
30°-40°	709.5	4.8
40°-50°	792.5	5.3
50°-60°	759.0	5.1
60°-70°	601.5	4.1
70°-80°	353.7	2.4
80°-90°	104.5	0.7
90°-100°	796.0	5.4
100°-110°	2092.7	14.1
110°-120°	2170.0	14.6
120°-130°	1740.6	11.7
130°-140°	1365.7	9.2
140°-150°	1048.2	7.1
150°-160°	754.9	5.1
160°-170°	461.9	3.1
170°-180°	156.1	1.1
0°-30°	937.4	6.3
0°-40°	1646.9	11.1
0°-60°	3198.4	21.5
0°-90°	4258.1	28.7
90°-120°	5058.7	34.1
90°-150°	9213.2	62.1
90°-180°	10586.0	71.3
0°-180°	14844.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	536	574	647	732	758	49
15°	401	740	1248	1513	1560	112
25°	256	840	1486	1552	1554	118
35°	173	802	1400	1479	1538	108
45°	118	640	1237	1417	1481	92
55°	85	406	1050	1219	1253	77
65°	67	216	779	876	889	67
75°	49	132	428	470	472	52
85°	18	41	106	117	118	19
90°	11	31	83	42	42	10
95°	105	412	1371	707	481	117
105°	377	571	2314	3513	3277	400
115°	670	813	1853	3697	4219	661
125°	932	1044	1686	2848	3360	827
135°	1110	1222	1633	2299	2607	859
145°	1288	1370	1612	1962	2115	807
155°	1455	1496	1612	1770	1822	669
165°	1570	1591	1612	1676	1696	443
175°	1633	1633	1623	1644	1644	155
180°	1633	1633	1633	1633	1633	



TEST NUMBER: P937453

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	549.6	549.6	553.2	554.9	558.4	560.2	563.8	567.3	577.9	579.7	583.2
5°	535.5	542.5	565.5	574.3	599.1	632.6	646.8	669.8	717.5	731.6	740.5
7.5°	514.2	530.1	586.7	600.8	662.8	751.1	788.2	837.7	913.7	950.8	980.8
10°	480.7	514.2	615.0	648.6	749.3	883.7	952.5	1021.5	1136.3	1187.6	1207.0
12.5°	443.5	498.3	645.0	691.0	835.9	1032.1	1115.2	1191.2	1321.9	1390.9	1401.4
15°	401.2	475.4	673.3	740.5	927.8	1155.8	1247.7	1341.3	1463.3	1512.8	1525.2
17.5°	364.1	457.7	699.8	770.5	998.5	1267.1	1360.8	1438.6	1537.6	1571.1	1580.0
20°	318.1	429.5	717.5	809.4	1072.8	1348.5	1438.6	1498.6	1565.8	1587.0	1590.5
22.5°	284.6	399.4	728.1	823.6	1122.2	1397.9	1473.9	1521.7	1567.6	1574.6	1576.4
25°	256.3	365.8	726.4	839.5	1164.6	1427.9	1486.3	1521.7	1548.1	1551.7	1551.7
27.5°	229.8	328.7	719.2	843.0	1196.4	1435.1	1481.0	1505.7	1518.1	1525.2	1525.2
30°	206.8	293.4	701.6	835.9	1210.6	1427.9	1465.1	1477.5	1489.8	1500.4	1505.7
32.5°	189.1	259.8	675.1	821.7	1212.3	1410.3	1436.8	1443.8	1461.5	1486.3	1495.1
35°	173.2	226.3	645.0	802.3	1201.8	1382.0	1399.7	1406.8	1442.1	1479.2	1491.5
37.5°	157.3	201.5	606.2	768.8	1185.8	1348.5	1360.8	1373.1	1427.9	1472.1	1486.3
40°	141.4	180.2	560.2	731.6	1161.1	1307.8	1318.4	1337.8	1410.3	1461.5	1475.6
42.5°	129.0	162.6	510.7	692.8	1129.3	1261.9	1277.8	1306.0	1389.0	1443.8	1459.7
45°	118.4	144.9	457.7	639.8	1088.7	1214.1	1237.1	1276.0	1364.4	1417.3	1431.5
47.5°	107.8	132.5	403.0	584.9	1044.5	1166.4	1196.4	1240.6	1330.7	1382.0	1394.4
50°	99.0	120.2	348.2	526.6	996.7	1115.2	1150.5	1196.4	1288.4	1336.1	1352.0
52.5°	91.9	109.6	296.9	468.3	942.0	1062.1	1102.8	1150.5	1237.1	1283.0	1293.6
55°	84.8	100.7	252.7	406.5	885.4	1005.6	1049.7	1095.7	1180.5	1219.4	1226.5
57.5°	81.3	93.6	215.6	348.2	825.3	942.0	991.4	1033.8	1113.3	1143.5	1150.5
60°	76.0	88.4	187.3	298.7	759.9	881.9	924.3	966.7	1033.8	1058.6	1063.9
62.5°	70.7	84.8	166.1	250.9	692.8	811.2	853.6	892.4	949.0	966.7	973.8
65°	67.2	81.3	150.2	215.6	623.9	737.0	779.4	813.0	858.9	876.5	880.1
67.5°	63.6	77.7	137.8	185.6	554.9	662.8	694.6	726.4	761.7	779.4	781.2
70°	58.3	74.2	127.3	164.3	484.2	577.9	604.4	638.0	666.3	675.1	680.4
72.5°	54.8	68.9	120.2	148.4	411.7	496.6	521.4	540.8	565.5	574.3	574.3
75°	49.4	61.8	113.1	132.5	337.5	406.5	427.6	447.1	466.6	470.1	464.8
77.5°	44.2	54.8	97.2	111.4	263.3	321.6	339.3	349.9	365.8	369.3	371.1
80°	37.2	47.7	76.0	86.6	190.9	236.8	249.2	258.0	272.2	272.2	275.7
82.5°	28.3	37.2	54.8	61.8	129.0	162.6	173.2	178.5	187.3	187.3	187.3
85°	17.7	23.0	35.3	40.7	77.7	99.0	106.0	107.8	114.9	116.6	116.6
87.5°	8.9	12.4	23.0	24.8	40.7	51.3	51.3	54.8	54.8	53.0	51.3
90°	11.0	19.8	28.5	30.7	48.2	71.6	83.3	74.0	55.5	41.6	41.6
92.5°	43.8	118.3	192.9	211.5	297.4	411.8	469.1	411.1	295.2	208.2	200.0
95°	105.2	241.6	378.0	412.1	731.7	1158.0	1371.0	1223.5	928.3	706.9	681.7
97.5°	181.9	302.2	422.6	452.7	985.6	1696.3	2051.6	1958.3	1771.8	1631.9	1584.2
100°	241.1	350.2	459.3	486.6	1078.0	1866.7	2261.0	2267.9	2281.5	2291.7	2234.8
102.5°	291.5	393.3	495.1	520.6	1120.4	1920.3	2320.2	2439.0	2676.7	2855.0	2806.3
105°	377.1	463.2	549.5	571.0	1151.9	1926.4	2313.6	2580.1	3113.0	3512.6	3486.4
107.5°	464.7	545.1	625.4	645.6	1157.7	1840.6	2182.1	2553.7	3297.1	3854.5	3860.8
110°	523.9	596.5	669.0	687.2	1148.9	1764.6	2072.4	2488.0	3318.9	3942.2	3969.5



TEST NUMBER: P937453

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	582.0	651.2	720.3	737.6	1149.3	1698.3	1972.8	2398.0	3248.5	3886.3	3928.2
115°	669.6	733.5	797.2	813.2	1159.9	1622.1	1853.3	2262.9	3082.2	3696.7	3754.7
117.5°	756.2	814.2	872.2	886.6	1181.5	1574.5	1771.1	2140.8	2880.2	3434.8	3499.2
120°	806.6	861.2	915.8	929.4	1199.1	1558.5	1738.2	2076.0	2751.6	3258.3	3320.9
122.5°	856.0	911.1	966.0	979.8	1224.3	1550.1	1713.0	2017.2	2625.6	3081.9	3143.6
125°	931.6	981.8	1031.9	1044.5	1258.2	1543.2	1685.6	1944.0	2460.8	2848.4	2905.2
127.5°	992.9	1043.6	1094.3	1106.9	1292.2	1539.1	1662.6	1884.5	2328.2	2661.0	2708.9
130°	1025.9	1080.4	1134.9	1148.6	1317.0	1541.6	1653.8	1851.4	2246.4	2542.7	2587.0
132.5°	1059.8	1114.4	1168.9	1182.5	1337.0	1543.1	1646.1	1822.9	2176.6	2441.9	2481.6
135°	1110.3	1159.9	1209.6	1222.0	1359.0	1541.7	1633.0	1781.1	2077.2	2299.3	2333.6
137.5°	1161.7	1210.9	1260.1	1272.4	1391.8	1551.2	1630.8	1756.0	2006.4	2194.2	2222.2
140°	1204.5	1249.8	1295.1	1306.4	1412.0	1552.7	1623.1	1731.2	1947.5	2109.8	2135.9
142.5°	1237.4	1279.2	1321.1	1331.6	1428.7	1558.3	1623.1	1718.1	1908.1	2050.6	2073.1
145°	1287.8	1324.3	1360.8	1370.0	1450.7	1558.4	1612.2	1689.9	1845.2	1961.8	1978.8
147.5°	1338.2	1373.8	1409.3	1418.2	1482.8	1569.1	1612.2	1673.3	1795.6	1887.3	1901.4
150°	1371.0	1403.2	1435.3	1443.4	1499.7	1574.7	1612.2	1663.9	1767.1	1844.5	1855.9
152.5°	1405.0	1429.3	1453.8	1459.8	1510.6	1578.3	1612.2	1656.3	1744.4	1810.5	1819.1
155°	1455.4	1473.4	1491.5	1496.0	1534.7	1586.4	1612.2	1647.3	1717.3	1770.0	1775.7
157.5°	1492.7	1510.2	1527.8	1532.2	1558.9	1594.5	1612.2	1639.4	1694.0	1734.9	1738.9
160°	1517.9	1531.6	1545.2	1548.6	1569.8	1598.1	1612.2	1635.6	1682.3	1717.3	1719.6
162.5°	1543.1	1553.3	1563.6	1566.1	1581.5	1601.9	1612.2	1631.9	1671.3	1700.9	1703.1
165°	1570.5	1579.7	1589.0	1591.3	1598.2	1607.6	1612.2	1626.3	1654.5	1675.7	1678.0
167.5°	1595.7	1600.1	1604.5	1605.6	1611.4	1619.2	1623.1	1632.4	1650.9	1664.8	1665.8
170°	1612.2	1616.6	1621.0	1622.0	1622.4	1622.8	1623.1	1632.4	1650.9	1664.8	1664.8
172.5°	1620.9	1621.9	1622.8	1623.1	1623.1	1623.1	1623.1	1630.4	1645.1	1656.0	1655.2
175°	1633.0	1633.0	1633.0	1633.0	1629.7	1625.3	1623.1	1627.8	1637.0	1643.9	1643.9
177.5°	1633.0	1633.0	1633.0	1633.0	1630.5	1627.1	1625.3	1629.0	1636.3	1641.7	1640.8
180°	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0	1633.0



TEST NUMBER: P937453

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	549.6	549.6
2.5°	586.7	583.2
5°	754.6	758.1
7.5°	1016.2	1014.4
10°	1263.6	1279.5
12.5°	1443.8	1447.4
15°	1553.5	1560.5
17.5°	1595.9	1597.6
20°	1597.6	1594.1
22.5°	1578.1	1574.6
25°	1555.2	1553.5
27.5°	1534.0	1535.8
30°	1525.2	1530.4
32.5°	1525.2	1534.0
35°	1528.7	1537.6
37.5°	1526.9	1537.6
40°	1519.8	1532.2
42.5°	1500.4	1509.3
45°	1470.4	1481.0
47.5°	1431.5	1438.6
50°	1382.0	1389.0
52.5°	1320.2	1321.9
55°	1246.0	1253.0
57.5°	1166.4	1168.1
60°	1078.0	1083.3
62.5°	984.4	984.4
65°	885.4	888.9
67.5°	782.9	791.7
70°	678.7	680.4
72.5°	576.2	576.2
75°	470.1	471.8
77.5°	369.3	369.3
80°	273.9	275.7
82.5°	189.1	192.6
85°	118.4	118.4
87.5°	54.8	49.4
90°	41.6	41.6
92.5°	166.8	133.7
95°	581.4	481.1
97.5°	1393.2	1202.3
100°	2007.4	1779.9
102.5°	2611.5	2416.6
105°	3381.6	3276.9
107.5°	3886.2	3911.5
110°	4078.6	4187.7



TEST NUMBER: P937453

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-12-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4095.8	4263.4
115°	3987.1	4219.4
117.5°	3756.8	4014.5
120°	3571.3	3821.7
122.5°	3390.5	3637.5
125°	3132.7	3360.2
127.5°	2900.9	3092.8
130°	2764.3	2941.6
132.5°	2640.3	2799.1
135°	2470.4	2607.3
137.5°	2334.2	2446.2
140°	2240.7	2345.4
142.5°	2163.2	2253.3
145°	2047.1	2115.2
147.5°	1957.9	2014.4
150°	1901.8	1947.5
152.5°	1853.7	1888.3
155°	1798.6	1821.5
157.5°	1755.0	1771.1
160°	1728.9	1738.2
162.5°	1711.9	1720.7
165°	1687.3	1696.5
167.5°	1669.7	1673.5
170°	1664.8	1664.8
172.5°	1651.7	1648.3
175°	1643.9	1643.9
177.5°	1636.9	1633.0
180°	1633.0	1633.0



TEST NUMBER: P937453
 CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-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	0.48	1.20	1.60	2.31	3.85	13.67	14.39	14.79	15.50	17.05
	3H	1.17	1.82	2.30	2.94	4.50	15.51	16.15	16.63	17.27	18.83
	4H	1.46	2.08	2.60	3.20	4.76	16.15	16.76	17.28	17.88	19.45
	6H	1.71	2.27	2.85	3.39	4.97	16.58	17.14	17.72	18.26	19.84
	8H	1.77	2.31	2.92	3.45	5.02	16.69	17.23	17.84	18.37	19.94
	12H	1.78	2.29	2.93	3.43	5.02	16.76	17.27	17.91	18.40	20.00
4H	2H	7.69	8.30	8.83	9.42	10.99	13.93	14.54	15.07	15.66	17.23
	3H	9.24	9.75	10.39	10.90	12.48	15.97	16.48	17.11	17.62	19.20
	4H	9.33	9.80	10.48	10.93	12.53	16.73	17.20	17.88	18.34	19.93
	6H	9.33	9.73	10.49	10.89	12.48	17.26	17.67	18.42	18.83	20.42
	8H	9.30	9.68	10.46	10.83	12.44	17.43	17.80	18.58	18.95	20.56
	12H	9.25	9.59	10.42	10.76	12.37	17.51	17.86	18.69	19.02	20.63
8H	4H	10.76	11.14	11.92	12.29	13.90	16.78	17.15	17.93	18.31	19.91
	6H	11.00	11.31	12.17	12.50	14.10	17.40	17.72	18.58	18.91	20.51
	8H	11.01	11.29	12.20	12.46	14.08	17.62	17.90	18.81	19.07	20.69
	12H	10.98	11.21	12.16	12.38	14.04	17.76	18.00	18.95	19.17	20.83
12H	4H	10.90	11.24	12.07	12.41	14.02	16.72	17.06	17.89	18.23	19.84
	6H	11.26	11.53	12.44	12.70	14.32	17.39	17.66	18.57	18.83	20.45
	8H	11.32	11.56	12.50	12.73	14.38	17.61	17.85	18.80	19.02	20.67