

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: P937569

Luminaire Tested: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937569
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-935-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

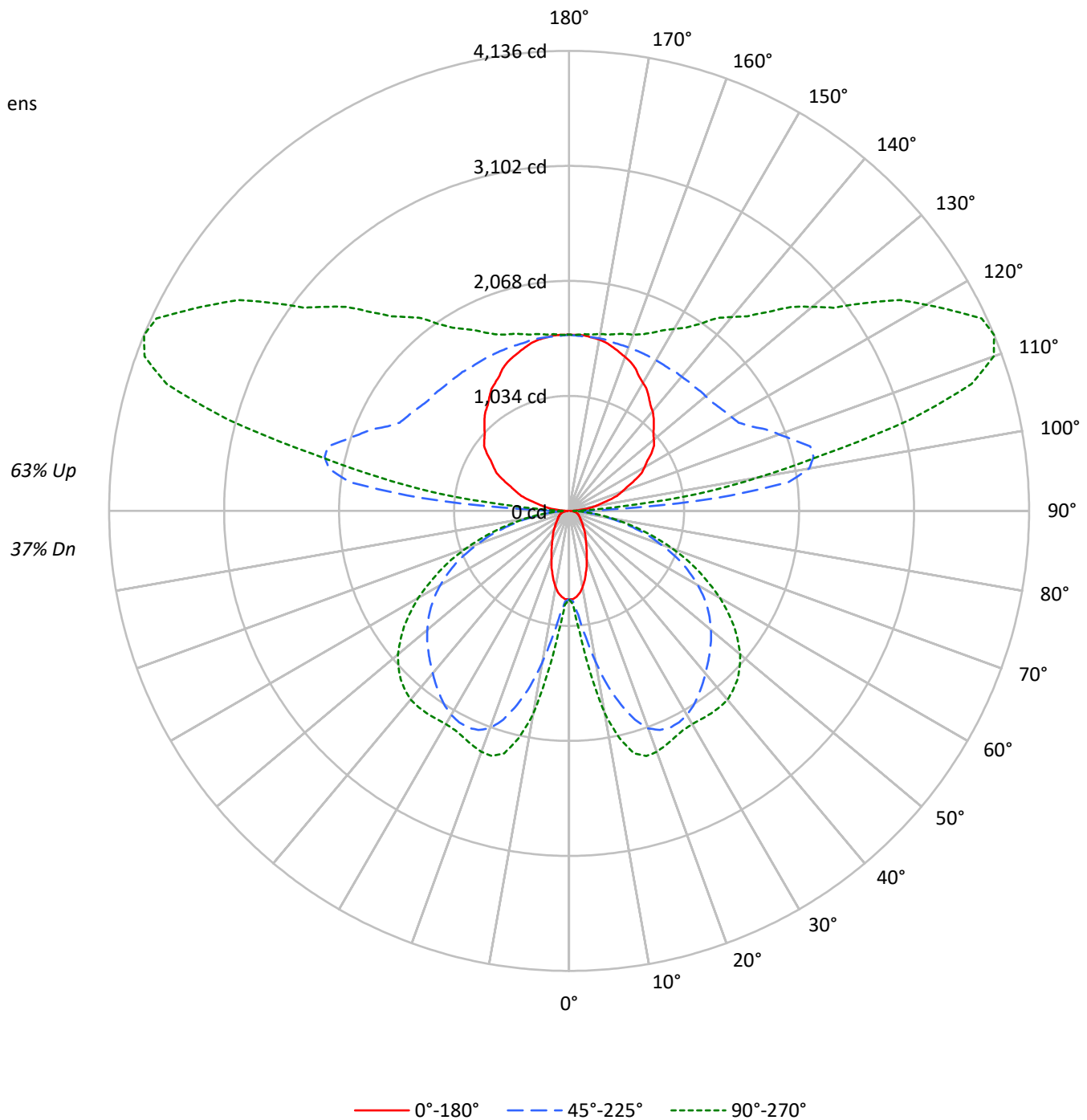
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16424.8 lumens
Efficiency: N/A
Efficacy: 111.3 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: P937569
CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P937569

CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

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	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°	2459	2459	2459
5°	2403	2843	3305
10°	2180	4145	5479
15°	1854	5416	6616
20°	1510	6278	6743
25°	1260	6571	6606
30°	1063	6615	6593
35°	940	6506	6764
40°	820	6366	6940
45°	743	6263	6967
50°	682	6171	6852
55°	654	6035	6548
60°	670	5773	6069
65°	698	5373	5410
70°	745	4689	4570
75°	830	3827	3567
80°	913	2657	2403
85°	830	1412	1230

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6967 cd/sqm



TEST NUMBER: P937569

CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	0.6
10°-20°	455.7	2.8
20°-30°	797.2	4.9
30°-40°	1026.2	6.2
40°-50°	1146.2	7.0
50°-60°	1097.8	6.7
60°-70°	870.0	5.3
70°-80°	511.6	3.1
80°-90°	148.2	0.9
90°-100°	772.2	4.7
100°-110°	2030.1	12.4
110°-120°	2105.0	12.8
120°-130°	1688.5	10.3
130°-140°	1324.8	8.1
140°-150°	1016.9	6.2
150°-160°	732.3	4.5
160°-170°	448.1	2.7
170°-180°	151.4	0.9
0°-30°	1355.7	8.3
0°-40°	2381.9	14.5
0°-60°	4626.0	28.2
0°-90°	6155.8	37.5
90°-120°	4907.2	29.9
90°-150°	8937.3	54.4
90°-180°	10269.0	62.5
0°-180°	16424.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	774	831	936	1058	1097	71
15°	580	1071	1805	2188	2257	161
25°	371	1214	2150	2244	2247	171
35°	250	1160	2024	2140	2224	156
45°	171	925	1789	2050	2142	132
55°	123	588	1518	1764	1812	112
65°	97	312	1127	1268	1286	96
75°	72	192	619	680	682	75
85°	26	59	153	169	171	27
90°	11	30	81	40	40	10
95°	102	400	1330	686	467	113
105°	366	554	2244	3407	3179	388
115°	650	789	1798	3586	4093	642
125°	904	1013	1635	2763	3260	802
135°	1077	1185	1584	2230	2529	833
145°	1249	1329	1564	1903	2052	783
155°	1412	1451	1564	1717	1767	649
165°	1524	1544	1564	1626	1646	430
175°	1584	1584	1574	1595	1595	150
180°	1584	1584	1584	1584	1584	



TEST NUMBER: P937569

CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9	794.9
2.5°	794.9	794.9	800.0	802.6	807.7	810.3	815.4	820.5	835.8	838.4	843.5
5°	774.5	784.7	817.9	830.7	866.5	915.0	935.5	968.8	1037.8	1058.3	1071.0
7.5°	743.8	766.8	848.6	869.0	958.5	1086.4	1140.1	1211.6	1321.5	1375.2	1418.7
10°	695.2	743.8	889.5	938.1	1083.8	1278.1	1377.8	1477.5	1643.6	1717.7	1745.8
12.5°	641.6	720.8	932.9	999.5	1209.1	1492.8	1612.9	1722.8	1912.0	2011.7	2027.0
15°	580.2	687.6	973.9	1071.0	1342.0	1671.7	1804.6	1940.1	2116.5	2188.0	2205.9
17.5°	526.5	662.0	1012.3	1114.5	1444.2	1832.7	1968.2	2080.7	2223.8	2272.4	2285.1
20°	460.1	621.1	1037.8	1170.7	1551.6	1950.3	2080.7	2167.6	2264.7	2295.4	2300.5
22.5°	411.5	577.7	1053.2	1191.2	1623.1	2021.9	2131.8	2200.8	2267.3	2277.5	2280.0
25°	370.6	529.1	1050.6	1214.2	1684.5	2065.3	2149.7	2200.8	2239.1	2244.3	2244.3
27.5°	332.3	475.4	1040.4	1219.3	1730.5	2075.6	2142.0	2177.8	2195.7	2205.9	2205.9
30°	299.1	424.3	1014.8	1209.1	1750.9	2065.3	2119.0	2136.9	2154.8	2170.1	2177.8
32.5°	273.5	375.7	976.5	1188.6	1753.5	2039.8	2078.1	2088.3	2113.9	2149.7	2162.5
35°	250.5	327.2	932.9	1160.5	1738.2	1998.9	2024.4	2034.7	2085.8	2139.5	2157.3
37.5°	227.5	291.4	876.7	1111.9	1715.2	1950.3	1968.2	1986.1	2065.3	2129.2	2149.7
40°	204.5	260.7	810.3	1058.3	1679.4	1891.5	1906.9	1935.0	2039.8	2113.9	2134.3
42.5°	186.6	235.2	738.7	1002.0	1633.4	1825.1	1848.1	1889.0	2009.1	2088.3	2111.3
45°	171.3	209.6	662.0	925.3	1574.6	1756.1	1789.3	1845.5	1973.3	2050.0	2070.4
47.5°	155.9	191.7	582.8	846.0	1510.7	1687.0	1730.5	1794.4	1924.8	1998.9	2016.8
50°	143.1	173.8	503.5	761.7	1441.7	1612.9	1664.0	1730.5	1863.4	1932.4	1955.4
52.5°	132.9	158.5	429.4	677.3	1362.4	1536.2	1595.0	1664.0	1789.3	1855.7	1871.1
55°	122.7	145.7	365.5	587.9	1280.6	1454.4	1518.3	1584.8	1707.5	1763.7	1773.9
57.5°	117.6	135.5	311.8	503.5	1193.7	1362.4	1434.0	1495.3	1610.4	1653.8	1664.0
60°	109.9	127.8	270.9	432.0	1099.2	1275.5	1336.9	1398.2	1495.3	1531.1	1538.8
62.5°	102.2	122.7	240.3	363.0	1002.0	1173.3	1234.6	1290.9	1372.7	1398.2	1408.4
65°	97.1	117.6	217.3	311.8	902.3	1065.9	1127.3	1175.8	1242.3	1267.9	1273.0
67.5°	92.0	112.5	199.4	268.4	802.6	958.5	1004.6	1050.6	1101.7	1127.3	1129.8
70°	84.3	107.4	184.0	237.7	700.3	835.8	874.2	922.7	963.6	976.5	984.1
72.5°	79.2	99.7	173.8	214.7	595.5	718.2	754.0	782.1	817.9	830.7	830.7
75°	71.6	89.5	163.6	191.7	488.2	587.9	618.6	646.7	674.8	679.9	672.2
77.5°	63.9	79.2	140.6	161.0	380.8	465.2	490.8	506.1	529.1	534.2	536.8
80°	53.7	69.0	109.9	125.2	276.0	342.5	360.4	373.2	393.6	393.6	398.7
82.5°	40.9	53.7	79.2	89.5	186.6	235.2	250.5	258.2	270.9	270.9	270.9
85°	25.6	33.2	51.1	58.8	112.5	143.1	153.4	155.9	166.1	168.7	168.7
87.5°	12.8	17.9	33.2	35.8	58.8	74.1	74.1	79.2	79.2	76.7	74.1
90°	10.6	19.2	27.6	29.7	46.8	69.4	80.8	71.8	53.8	40.4	40.4
92.5°	42.5	114.8	187.1	205.2	288.5	399.5	455.1	398.8	286.4	202.0	194.0
95°	102.1	234.4	366.7	399.8	709.8	1123.3	1330.0	1186.8	900.5	685.7	661.3
97.5°	176.4	293.2	409.9	439.1	956.1	1645.5	1990.2	1899.7	1718.7	1583.0	1536.8
100°	233.9	339.7	445.5	472.0	1045.7	1810.8	2193.3	2199.9	2213.2	2223.0	2167.9
102.5°	282.8	381.5	480.3	505.0	1086.9	1862.8	2250.7	2366.0	2596.6	2769.5	2722.2
105°	365.8	449.3	533.0	553.9	1117.4	1868.7	2244.3	2502.8	3019.7	3407.4	3382.0
107.5°	450.8	528.8	606.7	626.2	1123.0	1785.5	2116.7	2477.3	3198.3	3739.1	3745.2
110°	508.2	578.6	649.0	666.6	1114.5	1711.8	2010.4	2413.5	3219.5	3824.1	3850.6



TEST NUMBER: P937569

CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	564.5	631.7	698.7	715.5	1114.9	1647.4	1913.7	2326.2	3151.2	3769.9	3810.6
115°	649.6	711.5	773.4	788.9	1125.2	1573.6	1797.8	2195.2	2989.9	3586.0	3642.3
117.5°	733.6	789.8	846.0	860.1	1146.1	1527.4	1718.1	2076.7	2794.0	3331.9	3394.4
120°	782.5	835.4	888.4	901.6	1163.2	1511.9	1686.2	2013.9	2669.2	3160.7	3221.5
122.5°	830.4	883.8	937.1	950.5	1187.6	1503.7	1661.7	1956.8	2547.0	2989.6	3049.5
125°	903.7	952.4	1001.0	1013.2	1220.5	1497.0	1635.2	1885.8	2387.1	2763.1	2818.2
127.5°	963.2	1012.3	1061.5	1073.8	1253.5	1493.0	1612.8	1828.1	2258.5	2581.3	2627.8
130°	995.1	1048.0	1101.0	1114.2	1277.6	1495.4	1604.3	1795.9	2179.2	2466.5	2509.6
132.5°	1028.1	1081.0	1133.9	1147.1	1297.0	1496.9	1596.8	1768.3	2111.4	2368.7	2407.2
135°	1077.0	1125.2	1173.4	1185.4	1318.3	1495.5	1584.1	1727.8	2015.0	2230.5	2263.7
137.5°	1126.9	1174.7	1222.4	1234.3	1350.2	1504.7	1582.0	1703.4	1946.3	2128.5	2155.6
140°	1168.4	1212.4	1256.3	1267.3	1369.7	1506.3	1574.5	1679.4	1889.2	2046.6	2072.0
142.5°	1200.3	1240.9	1281.6	1291.7	1385.9	1511.6	1574.5	1666.7	1851.0	1989.2	2011.0
145°	1249.2	1284.6	1320.1	1328.9	1407.2	1511.7	1563.9	1639.2	1790.0	1903.0	1919.6
147.5°	1298.1	1332.6	1367.1	1375.7	1438.4	1522.1	1563.9	1623.2	1741.8	1830.8	1844.5
150°	1330.0	1361.2	1392.3	1400.2	1454.8	1527.6	1563.9	1614.0	1714.1	1789.3	1800.4
152.5°	1362.9	1386.5	1410.2	1416.1	1465.4	1531.0	1563.9	1606.7	1692.2	1756.3	1764.7
155°	1411.8	1429.3	1446.9	1451.2	1488.8	1538.9	1563.9	1597.9	1665.9	1717.0	1722.5
157.5°	1448.0	1465.0	1482.1	1486.3	1512.2	1546.7	1563.9	1590.3	1643.3	1683.0	1686.9
160°	1472.4	1485.7	1498.9	1502.2	1522.8	1550.2	1563.9	1586.6	1631.9	1665.9	1668.1
162.5°	1496.9	1506.8	1516.7	1519.2	1534.1	1554.0	1563.9	1583.0	1621.3	1650.0	1652.1
165°	1523.5	1532.4	1541.4	1543.7	1550.4	1559.4	1563.9	1577.6	1605.0	1625.5	1627.7
167.5°	1547.9	1552.2	1556.4	1557.5	1563.2	1570.7	1574.5	1583.5	1601.5	1615.0	1615.9
170°	1563.9	1568.2	1572.5	1573.5	1573.8	1574.2	1574.5	1583.5	1601.5	1615.0	1615.0
172.5°	1572.4	1573.3	1574.2	1574.5	1574.5	1574.5	1574.5	1581.6	1595.8	1606.4	1605.6
175°	1584.1	1584.1	1584.1	1584.1	1580.9	1576.6	1574.5	1579.0	1588.0	1594.7	1594.7
177.5°	1584.1	1584.1	1584.1	1584.1	1581.7	1578.3	1576.6	1580.2	1587.3	1592.6	1591.6
180°	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1



TEST NUMBER: P937569

CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	794.9	794.9
2.5°	848.6	843.5
5°	1091.5	1096.6
7.5°	1469.8	1467.2
10°	1827.6	1850.6
12.5°	2088.3	2093.4
15°	2246.8	2257.0
17.5°	2308.2	2310.7
20°	2310.7	2305.6
22.5°	2282.6	2277.5
25°	2249.4	2246.8
27.5°	2218.7	2221.2
30°	2205.9	2213.6
32.5°	2205.9	2218.7
35°	2211.0	2223.8
37.5°	2208.5	2223.8
40°	2198.2	2216.1
42.5°	2170.1	2182.9
45°	2126.7	2142.0
47.5°	2070.4	2080.7
50°	1998.9	2009.1
52.5°	1909.4	1912.0
55°	1802.1	1812.3
57.5°	1687.0	1689.6
60°	1559.2	1566.9
62.5°	1423.8	1423.8
65°	1280.6	1285.8
67.5°	1132.4	1145.2
70°	981.6	984.1
72.5°	833.3	833.3
75°	679.9	682.5
77.5°	534.2	534.2
80°	396.2	398.7
82.5°	273.5	278.6
85°	171.3	171.3
87.5°	79.2	71.6
90°	40.4	40.4
92.5°	161.8	129.7
95°	564.0	466.7
97.5°	1351.5	1166.3
100°	1947.2	1726.6
102.5°	2533.3	2344.3
105°	3280.4	3178.8
107.5°	3769.8	3794.4
110°	3956.4	4062.3



TEST NUMBER: P937569

CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3973.1	4135.7
115°	3867.7	4093.1
117.5°	3644.3	3894.3
120°	3464.3	3707.2
122.5°	3289.0	3528.6
125°	3038.9	3259.6
127.5°	2814.1	3000.2
130°	2681.5	2853.5
132.5°	2561.3	2715.3
135°	2396.4	2529.2
137.5°	2264.3	2373.0
140°	2173.6	2275.2
142.5°	2098.4	2185.8
145°	1985.8	2051.9
147.5°	1899.3	1954.1
150°	1844.8	1889.2
152.5°	1798.2	1831.8
155°	1744.7	1767.0
157.5°	1702.5	1718.1
160°	1677.2	1686.2
162.5°	1660.6	1669.2
165°	1636.8	1645.7
167.5°	1619.7	1623.4
170°	1615.0	1615.0
172.5°	1602.3	1598.9
175°	1594.7	1594.7
177.5°	1587.9	1584.1
180°	1584.1	1584.1



TEST NUMBER: P937569
 CATALOG NUMBER: SQ4-FB-100U-075D-935-1D-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	2.87	3.65	3.92	4.71	6.15	16.06	16.85	17.11	17.91	19.34
	3H	3.57	4.27	4.63	5.34	6.80	17.90	18.60	18.96	19.67	21.13
	4H	3.86	4.53	4.93	5.60	7.06	18.54	19.21	19.62	20.28	21.75
	6H	4.11	4.73	5.19	5.80	7.27	18.98	19.59	20.06	20.67	22.14
	8H	4.17	4.76	5.26	5.85	7.32	19.10	19.68	20.18	20.77	22.24
	12H	4.19	4.75	5.28	5.83	7.32	19.16	19.72	20.26	20.81	22.30
4H	2H	10.08	10.75	11.16	11.82	13.28	16.32	16.99	17.40	18.06	19.53
	3H	11.64	12.20	12.73	13.30	14.77	18.37	18.93	19.45	20.03	21.50
	4H	11.73	12.25	12.83	13.34	14.83	19.14	19.65	20.23	20.74	22.23
	6H	11.74	12.18	12.84	13.29	14.78	19.67	20.12	20.77	21.23	22.72
	8H	11.71	12.13	12.81	13.23	14.74	19.84	20.25	20.94	21.35	22.86
	12H	11.67	12.04	12.79	13.16	14.67	19.93	20.30	21.05	21.42	22.93
8H	4H	13.18	13.59	14.28	14.69	16.20	19.19	19.60	20.29	20.71	22.21
	6H	13.41	13.76	14.54	14.90	16.40	19.82	20.16	20.94	21.31	22.81
	8H	13.43	13.73	14.56	14.86	16.38	20.04	20.34	21.17	21.47	22.99
	12H	13.39	13.66	14.53	14.78	16.34	20.18	20.45	21.32	21.57	23.13
12H	4H	13.32	13.69	14.43	14.81	16.32	19.14	19.51	20.26	20.63	22.14
	6H	13.67	13.97	14.80	15.10	16.62	19.80	20.10	20.93	21.23	22.75
	8H	13.74	14.00	14.87	15.12	16.68	20.03	20.29	21.16	21.42	22.98