

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: P937521

Luminaire Tested: SQ4-FB-100U-075D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937521
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-927-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

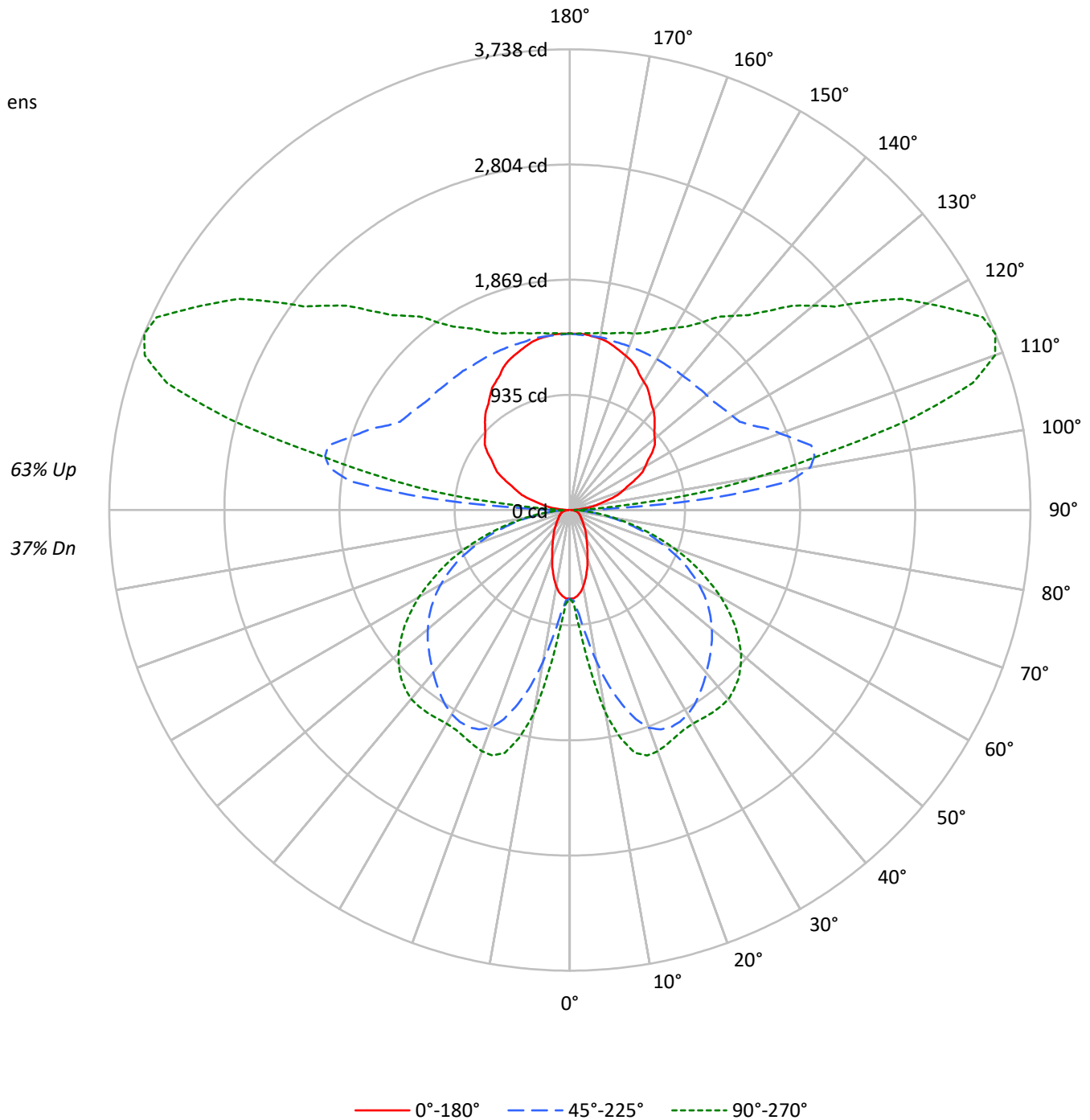
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14844.1 lumens
Efficiency: N/A
Efficacy: 100.6 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 (Ain): 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: P937521
CATALOG NUMBER: SQ4-FB-100U-075D-927-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





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CATALOG NUMBER: SQ4-FB-100U-075D-927-1D-UNV-STD-W-12

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	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°	2222	2222	2222
5°	2172	2569	2987
10°	1970	3746	4952
15°	1675	4895	5979
20°	1365	5674	6094
25°	1139	5939	5970
30°	961	5978	5959
35°	850	5880	6113
40°	741	5753	6272
45°	672	5660	6297
50°	617	5577	6192
55°	591	5454	5918
60°	606	5217	5485
65°	631	4856	4889
70°	674	4237	4130
75°	750	3458	3223
80°	825	2401	2172
85°	749	1276	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6297 cd/sqm



TEST NUMBER: P937521

CATALOG NUMBER: SQ4-FB-100U-075D-927-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.9	0.6
10°-20°	411.9	2.8
20°-30°	720.5	4.9
30°-40°	927.4	6.2
40°-50°	1035.9	7.0
50°-60°	992.2	6.7
60°-70°	786.3	5.3
70°-80°	462.3	3.1
80°-90°	133.9	0.9
90°-100°	697.8	4.7
100°-110°	1834.7	12.4
110°-120°	1902.4	12.8
120°-130°	1525.9	10.3
130°-140°	1197.3	8.1
140°-150°	919.0	6.2
150°-160°	661.8	4.5
160°-170°	404.9	2.7
170°-180°	136.8	0.9
0°-30°	1225.3	8.3
0°-40°	2152.7	14.5
0°-60°	4180.8	28.2
0°-90°	5563.3	37.5
90°-120°	4434.9	29.9
90°-150°	8077.2	54.4
90°-180°	9281.0	62.5
0°-180°	14844.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	700	751	846	956	991	65
15°	524	968	1631	1977	2040	146
25°	335	1097	1943	2028	2031	154
35°	226	1049	1830	1934	2010	141
45°	155	836	1617	1853	1936	120
55°	111	531	1372	1594	1638	101
65°	88	282	1019	1146	1162	87
75°	65	173	559	614	617	68
85°	23	53	139	152	155	25
90°	10	27	73	36	36	9
95°	92	361	1202	620	422	102
105°	331	501	2028	3080	2873	350
115°	587	713	1625	3241	3699	580
125°	817	916	1478	2497	2946	725
135°	973	1071	1432	2016	2286	753
145°	1129	1201	1413	1720	1854	707
155°	1276	1312	1413	1552	1597	586
165°	1377	1395	1413	1469	1487	389
175°	1432	1432	1423	1441	1441	136
180°	1432	1432	1432	1432	1432	



TEST NUMBER: P937521

CATALOG NUMBER: SQ4-FB-100U-075D-927-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	718.4	718.4	718.4	718.4	718.4	718.4	718.4	718.4	718.4	718.4	718.4
2.5°	718.4	718.4	723.0	725.3	730.0	732.3	736.9	741.5	755.4	757.7	762.3
5°	699.9	709.2	739.2	750.8	783.1	827.0	845.5	875.6	937.9	956.4	968.0
7.5°	672.2	693.0	766.9	785.4	866.2	981.8	1030.3	1095.0	1194.3	1242.9	1282.1
10°	628.3	672.2	803.9	847.8	979.5	1155.1	1245.2	1335.3	1485.4	1552.4	1577.8
12.5°	579.8	651.4	843.2	903.3	1092.7	1349.1	1457.7	1557.0	1728.0	1818.0	1831.9
15°	524.4	621.4	880.2	968.0	1212.8	1510.8	1630.9	1753.4	1912.8	1977.4	1993.6
17.5°	475.9	598.3	914.8	1007.2	1305.2	1656.3	1778.8	1880.4	2009.8	2053.7	2065.2
20°	415.8	561.3	937.9	1058.1	1402.2	1762.6	1880.4	1959.0	2046.7	2074.5	2079.1
22.5°	371.9	522.1	951.8	1076.5	1466.9	1827.3	1926.6	1989.0	2049.0	2058.3	2060.6
25°	335.0	478.2	949.5	1097.3	1522.4	1866.6	1942.8	1989.0	2023.6	2028.3	2028.3
27.5°	300.3	429.7	940.2	1101.9	1563.9	1875.8	1935.9	1968.2	1984.4	1993.6	1993.6
30°	270.3	383.5	917.1	1092.7	1582.4	1866.6	1915.1	1931.2	1947.4	1961.3	1968.2
32.5°	247.2	339.6	882.5	1074.2	1584.7	1843.5	1878.1	1887.3	1910.4	1942.8	1954.3
35°	226.4	295.7	843.2	1048.8	1570.9	1806.5	1829.6	1838.8	1885.0	1933.5	1949.7
37.5°	205.6	263.3	792.3	1004.9	1550.1	1762.6	1778.8	1794.9	1866.6	1924.3	1942.8
40°	184.8	235.6	732.3	956.4	1517.7	1709.5	1723.3	1748.7	1843.5	1910.4	1928.9
42.5°	168.6	212.5	667.6	905.6	1476.2	1649.4	1670.2	1707.2	1815.7	1887.3	1908.1
45°	154.8	189.4	598.3	836.2	1423.0	1587.0	1617.1	1667.9	1783.4	1852.7	1871.2
47.5°	140.9	173.2	526.7	764.6	1365.3	1524.7	1563.9	1621.7	1739.5	1806.5	1822.7
50°	129.4	157.1	455.1	688.4	1302.9	1457.7	1503.9	1563.9	1684.1	1746.4	1767.2
52.5°	120.1	143.2	388.1	612.2	1231.3	1388.4	1441.5	1503.9	1617.1	1677.1	1691.0
55°	110.9	131.7	330.3	531.3	1157.4	1314.5	1372.2	1432.3	1543.2	1594.0	1603.2
57.5°	106.3	122.4	281.8	455.1	1078.8	1231.3	1296.0	1351.4	1455.4	1494.6	1503.9
60°	99.3	115.5	244.9	390.4	993.4	1152.8	1208.2	1263.6	1351.4	1383.8	1390.7
62.5°	92.4	110.9	217.1	328.0	905.6	1060.4	1115.8	1166.6	1240.5	1263.6	1272.9
65°	87.8	106.3	196.4	281.8	815.4	963.3	1018.8	1062.7	1122.7	1145.8	1150.5
67.5°	83.2	101.6	180.2	242.6	725.3	866.2	907.9	949.5	995.7	1018.8	1021.1
70°	76.2	97.0	166.3	214.8	632.9	755.4	790.0	833.9	870.9	882.5	889.4
72.5°	71.6	90.1	157.1	194.0	538.2	649.1	681.4	706.9	739.2	750.8	750.8
75°	64.7	80.9	147.8	173.2	441.2	531.3	559.0	584.4	609.8	614.5	607.5
77.5°	57.8	71.6	127.0	145.5	344.2	420.4	443.5	457.4	478.2	482.8	485.1
80°	48.5	62.4	99.3	113.2	249.5	309.5	325.7	337.3	355.7	355.7	360.4
82.5°	37.0	48.5	71.6	80.9	168.6	212.5	226.4	233.3	244.9	244.9	244.9
85°	23.1	30.0	46.2	53.1	101.6	129.4	138.6	140.9	150.2	152.5	152.5
87.5°	11.6	16.2	30.0	32.3	53.1	67.0	67.0	71.6	71.6	69.3	67.0
90°	9.6	17.3	24.9	26.9	42.3	62.8	73.0	64.9	48.7	36.5	36.5
92.5°	38.4	103.7	169.1	185.4	260.7	361.1	411.3	360.4	258.8	182.6	175.3
95°	92.2	211.8	331.4	361.3	641.5	1015.2	1202.0	1072.6	813.8	619.7	597.7
97.5°	159.5	265.0	370.4	396.9	864.1	1487.1	1798.6	1716.9	1553.3	1430.7	1388.8
100°	211.4	307.0	402.6	426.6	945.1	1636.5	1982.2	1988.2	2000.2	2009.1	1959.3
102.5°	255.6	344.8	434.0	456.4	982.3	1683.5	2034.1	2138.3	2346.7	2503.0	2460.2
105°	330.6	406.1	481.7	500.6	1009.9	1688.8	2028.3	2262.0	2729.1	3079.5	3056.5
107.5°	407.4	477.9	548.3	566.0	1014.9	1613.6	1913.0	2238.9	2890.5	3379.2	3384.8
110°	459.3	522.9	586.5	602.4	1007.2	1547.0	1816.9	2181.2	2909.7	3456.1	3480.0



TEST NUMBER: P937521

CATALOG NUMBER: SQ4-FB-100U-075D-927-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	510.2	570.9	631.5	646.6	1007.6	1488.9	1729.5	2102.3	2847.9	3407.1	3443.8
115°	587.0	643.0	698.9	712.9	1016.9	1422.1	1624.8	1983.9	2702.2	3240.9	3291.8
117.5°	663.0	713.8	764.6	777.3	1035.8	1380.4	1552.7	1876.8	2525.1	3011.2	3067.7
120°	707.2	755.0	802.9	814.8	1051.2	1366.4	1523.9	1820.0	2412.3	2856.5	2911.4
122.5°	750.4	798.7	846.9	859.0	1073.3	1359.0	1501.8	1768.5	2301.8	2701.9	2756.0
125°	816.7	860.7	904.7	915.7	1103.0	1352.9	1477.8	1704.3	2157.4	2497.2	2547.0
127.5°	870.5	914.9	959.3	970.4	1132.8	1349.3	1457.6	1652.1	2041.1	2332.9	2374.9
130°	899.4	947.2	995.0	1006.9	1154.6	1351.5	1449.9	1623.1	1969.4	2229.2	2268.0
132.5°	929.2	977.0	1024.8	1036.7	1172.2	1352.8	1443.1	1598.1	1908.2	2140.8	2175.6
135°	973.4	1016.9	1060.4	1071.3	1191.4	1351.6	1431.7	1561.5	1821.0	2015.8	2045.8
137.5°	1018.5	1061.6	1104.7	1115.5	1220.2	1359.9	1429.7	1539.5	1759.0	1923.6	1948.2
140°	1056.0	1095.7	1135.4	1145.3	1237.9	1361.3	1423.0	1517.7	1707.4	1849.6	1872.6
142.5°	1084.8	1121.5	1158.2	1167.4	1252.6	1366.1	1423.0	1506.3	1672.8	1797.7	1817.4
145°	1129.0	1161.0	1193.0	1201.0	1271.8	1366.2	1413.4	1481.5	1617.7	1719.9	1734.8
147.5°	1173.2	1204.4	1235.5	1243.3	1300.0	1375.6	1413.4	1467.0	1574.2	1654.6	1667.0
150°	1202.0	1230.2	1258.3	1265.4	1314.8	1380.5	1413.4	1458.7	1549.2	1617.1	1627.1
152.5°	1231.8	1253.1	1274.5	1279.8	1324.3	1383.7	1413.4	1452.1	1529.3	1587.3	1594.8
155°	1276.0	1291.8	1307.6	1311.5	1345.5	1390.8	1413.4	1444.1	1505.6	1551.7	1556.7
157.5°	1308.6	1324.0	1339.4	1343.3	1366.7	1397.9	1413.4	1437.3	1485.1	1521.0	1524.5
160°	1330.7	1342.7	1354.7	1357.7	1376.2	1401.0	1413.4	1433.9	1474.9	1505.6	1507.6
162.5°	1352.8	1361.7	1370.8	1373.0	1386.5	1404.4	1413.4	1430.7	1465.2	1491.2	1493.1
165°	1376.8	1384.9	1393.1	1395.1	1401.2	1409.3	1413.4	1425.8	1450.5	1469.1	1471.1
167.5°	1398.9	1402.8	1406.6	1407.6	1412.7	1419.6	1423.0	1431.1	1447.4	1459.5	1460.4
170°	1413.4	1417.3	1421.1	1422.0	1422.3	1422.7	1423.0	1431.1	1447.4	1459.5	1459.5
172.5°	1421.0	1421.9	1422.7	1423.0	1423.0	1423.0	1423.0	1429.4	1442.2	1451.8	1451.1
175°	1431.7	1431.7	1431.7	1431.7	1428.7	1424.9	1423.0	1427.0	1435.1	1441.2	1441.2
177.5°	1431.7	1431.7	1431.7	1431.7	1429.4	1426.4	1424.9	1428.1	1434.5	1439.3	1438.4
180°	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7



TEST NUMBER: P937521

CATALOG NUMBER: SQ4-FB-100U-075D-927-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	718.4	718.4
2.5°	766.9	762.3
5°	986.4	991.1
7.5°	1328.3	1326.0
10°	1651.7	1672.5
12.5°	1887.3	1892.0
15°	2030.6	2039.8
17.5°	2086.0	2088.3
20°	2088.3	2083.7
22.5°	2062.9	2058.3
25°	2032.9	2030.6
27.5°	2005.2	2007.5
30°	1993.6	2000.5
32.5°	1993.6	2005.2
35°	1998.2	2009.8
37.5°	1995.9	2009.8
40°	1986.7	2002.8
42.5°	1961.3	1972.8
45°	1922.0	1935.9
47.5°	1871.2	1880.4
50°	1806.5	1815.7
52.5°	1725.6	1728.0
55°	1628.6	1637.9
57.5°	1524.7	1527.0
60°	1409.2	1416.1
62.5°	1286.7	1286.7
65°	1157.4	1162.0
67.5°	1023.4	1035.0
70°	887.1	889.4
72.5°	753.1	753.1
75°	614.5	616.8
77.5°	482.8	482.8
80°	358.0	360.4
82.5°	247.2	251.8
85°	154.8	154.8
87.5°	71.6	64.7
90°	36.5	36.5
92.5°	146.2	117.2
95°	509.7	421.8
97.5°	1221.5	1054.1
100°	1759.8	1560.4
102.5°	2289.4	2118.7
105°	2964.7	2872.9
107.5°	3407.0	3429.2
110°	3575.6	3671.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3590.7	3737.7
115°	3495.5	3699.2
117.5°	3293.6	3519.5
120°	3130.9	3350.4
122.5°	2972.4	3189.0
125°	2746.4	2945.9
127.5°	2543.2	2711.5
130°	2423.4	2578.9
132.5°	2314.8	2454.0
135°	2165.8	2285.8
137.5°	2046.4	2144.6
140°	1964.4	2056.2
142.5°	1896.4	1975.4
145°	1794.6	1854.4
147.5°	1716.5	1766.0
150°	1667.3	1707.4
152.5°	1625.2	1655.5
155°	1576.8	1596.9
157.5°	1538.6	1552.7
160°	1515.7	1523.9
162.5°	1500.8	1508.5
165°	1479.2	1487.3
167.5°	1463.8	1467.2
170°	1459.5	1459.5
172.5°	1448.1	1445.1
175°	1441.2	1441.2
177.5°	1435.0	1431.7
180°	1431.7	1431.7



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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	2.52	3.30	3.57	4.36	5.80	15.71	16.49	16.76	17.55	18.99
	3H	3.22	3.92	4.28	4.99	6.44	17.55	18.25	18.61	19.32	20.78
	4H	3.51	4.18	4.58	5.25	6.71	18.19	18.86	19.26	19.93	21.39
	6H	3.76	4.37	4.84	5.45	6.92	18.62	19.24	19.71	20.31	21.79
	8H	3.82	4.41	4.91	5.50	6.97	18.74	19.33	19.83	20.42	21.89
	12H	3.84	4.40	4.93	5.48	6.97	18.81	19.37	19.90	20.46	21.95
4H	2H	9.73	10.40	10.81	11.47	12.93	15.97	16.64	17.05	17.71	19.17
	3H	11.29	11.85	12.38	12.95	14.42	18.02	18.58	19.10	19.67	21.15
	4H	11.38	11.90	12.47	12.98	14.48	18.78	19.30	19.88	20.39	21.88
	6H	11.39	11.83	12.49	12.94	14.43	19.32	19.77	20.42	20.88	22.37
	8H	11.36	11.78	12.46	12.88	14.38	19.49	19.90	20.59	21.00	22.51
	12H	11.32	11.69	12.43	12.81	14.32	19.58	19.95	20.70	21.07	22.58
8H	4H	12.82	13.24	13.92	14.34	15.85	18.84	19.25	19.94	20.35	21.86
	6H	13.06	13.40	14.18	14.55	16.05	19.47	19.81	20.59	20.95	22.46
	8H	13.08	13.38	14.21	14.50	16.03	19.69	19.99	20.82	21.11	22.64
	12H	13.04	13.31	14.18	14.43	15.99	19.83	20.10	20.97	21.22	22.78
12H	4H	12.96	13.34	14.08	14.45	15.97	18.79	19.16	19.90	20.28	21.79
	6H	13.32	13.62	14.45	14.75	16.27	19.45	19.75	20.58	20.88	22.40
	8H	13.39	13.65	14.52	14.77	16.33	19.68	19.94	20.81	21.07	22.62