

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: P937553

Luminaire Tested: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

**Test Information**

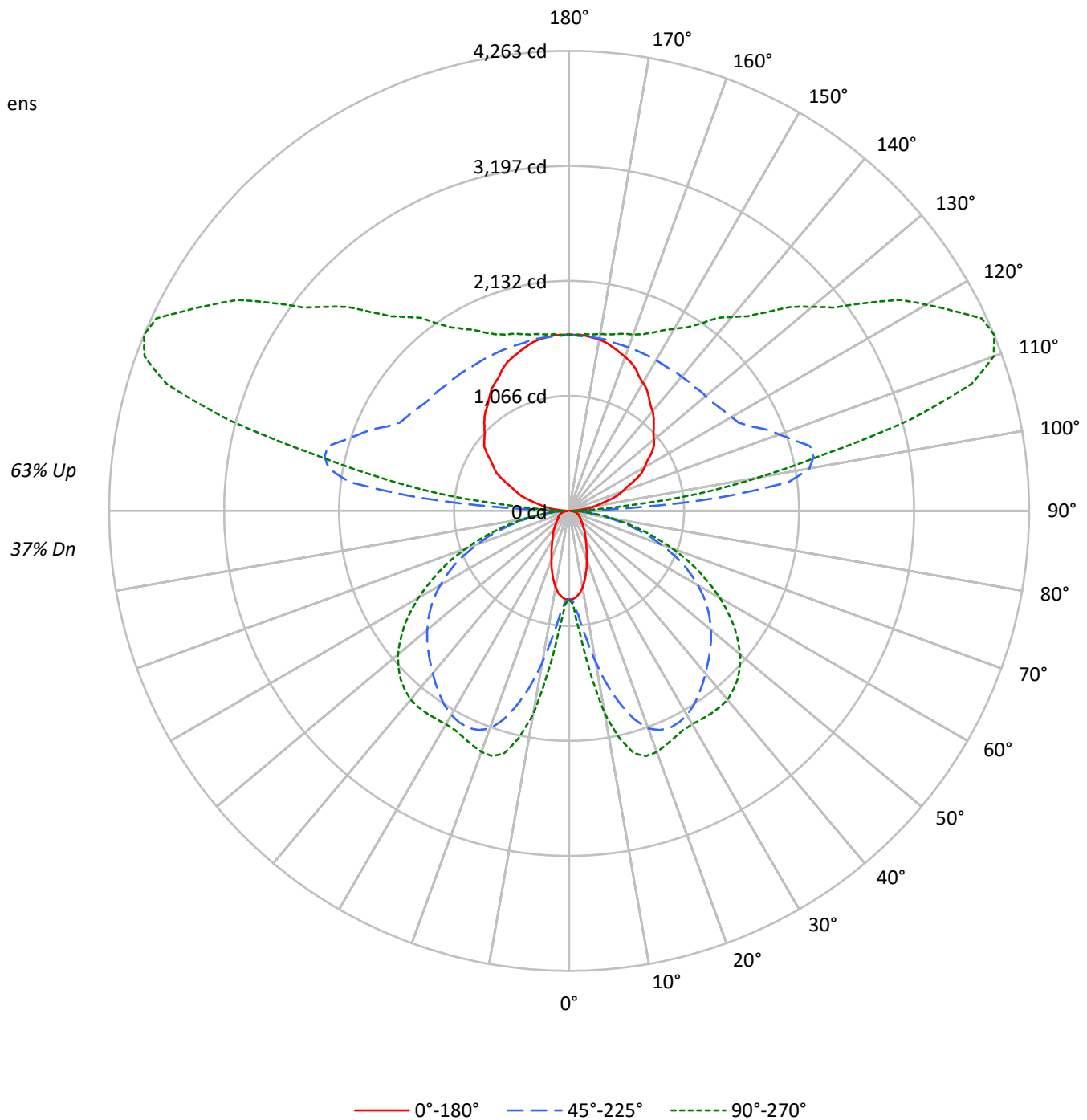
Test Method: LM-79-2019  
Report Number: P937553  
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16931.9 lumens  
Efficiency: N/A  
Efficacy: 114.7 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<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	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°	2535	2535	2535
5°	2477	2930	3407
10°	2248	4273	5649
15°	1911	5583	6820
20°	1556	6472	6951
25°	1299	6774	6810
30°	1096	6819	6797
35°	969	6707	6973
40°	845	6562	7154
45°	766	6456	7182
50°	703	6361	7063
55°	674	6222	6750
60°	691	5951	6256
65°	720	5539	5577
70°	769	4833	4711
75°	855	3944	3676
80°	941	2739	2477
85°	852	1456	1268

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7182 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.0	0.6
10°-20°	469.8	2.8
20°-30°	821.8	4.9
30°-40°	1057.9	6.2
40°-50°	1181.6	7.0
50°-60°	1131.7	6.7
60°-70°	896.9	5.3
70°-80°	527.4	3.1
80°-90°	152.7	0.9
90°-100°	796.0	4.7
100°-110°	2092.7	12.4
110°-120°	2170.0	12.8
120°-130°	1740.6	10.3
130°-140°	1365.7	8.1
140°-150°	1048.2	6.2
150°-160°	754.9	4.5
160°-170°	461.9	2.7
170°-180°	156.1	0.9
0°-30°	1397.6	8.3
0°-40°	2455.5	14.5
0°-60°	4768.8	28.2
0°-90°	6345.8	37.5
90°-120°	5058.7	29.9
90°-150°	9213.2	54.4
90°-180°	10586.0	62.5
0°-180°	16931.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	798	856	964	1091	1130	74
15°	598	1104	1860	2256	2327	166
25°	382	1252	2216	2314	2316	176
35°	258	1196	2087	2206	2292	161
45°	176	954	1844	2113	2208	137
55°	126	606	1565	1818	1868	115
65°	100	322	1162	1307	1325	99
75°	74	198	638	701	704	77
85°	26	61	158	174	176	28
90°	11	31	83	42	42	11
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5
2.5°	819.5	819.5	824.7	827.4	832.6	835.3	840.5	845.8	861.6	864.2	869.5
5°	798.4	808.9	843.2	856.3	893.2	943.3	964.4	998.7	1069.9	1090.9	1104.1
7.5°	766.8	790.5	874.8	895.9	988.1	1119.9	1175.3	1249.0	1362.3	1417.7	1462.5
10°	716.7	766.8	916.9	967.0	1117.3	1317.5	1420.3	1523.1	1694.3	1770.7	1799.7
12.5°	661.4	743.0	961.7	1030.3	1246.4	1538.9	1662.7	1776.0	1971.0	2073.8	2089.6
15°	598.1	708.8	1004.0	1104.1	1383.4	1723.3	1860.3	2000.0	2181.8	2255.6	2274.0
17.5°	542.8	682.4	1043.5	1148.9	1488.8	1889.3	2029.0	2144.9	2292.5	2342.5	2355.7
20°	474.3	640.3	1069.9	1206.9	1599.5	2010.5	2144.9	2234.5	2334.6	2366.2	2371.5
22.5°	424.2	595.5	1085.7	1228.0	1673.3	2084.3	2197.6	2268.7	2337.2	2347.8	2350.4
25°	382.1	545.4	1083.0	1251.7	1736.5	2129.1	2216.0	2268.7	2308.3	2313.5	2313.5
27.5°	342.5	490.1	1072.5	1256.9	1783.9	2139.6	2208.1	2245.0	2263.5	2274.0	2274.0
30°	308.3	437.4	1046.1	1246.4	1805.0	2129.1	2184.4	2202.9	2221.3	2237.1	2245.0
32.5°	281.9	387.3	1006.6	1225.3	1807.6	2102.7	2142.3	2152.8	2179.2	2216.0	2229.2
35°	258.2	337.3	961.7	1196.3	1791.8	2060.6	2086.9	2097.5	2150.2	2205.5	2223.9
37.5°	234.5	300.4	903.8	1146.3	1768.1	2010.5	2029.0	2047.4	2129.1	2195.0	2216.0
40°	210.8	268.8	835.3	1090.9	1731.2	1949.9	1965.7	1994.7	2102.7	2179.2	2200.2
42.5°	192.3	242.4	761.5	1033.0	1683.8	1881.4	1905.1	1947.3	2071.1	2152.8	2176.5
45°	176.5	216.1	682.4	953.8	1623.2	1810.3	1844.5	1902.5	2034.2	2113.3	2134.4
47.5°	160.7	197.6	600.8	872.2	1557.3	1739.1	1783.9	1849.8	1984.2	2060.6	2079.0
50°	147.6	179.2	519.1	785.2	1486.2	1662.7	1715.4	1783.9	1920.9	1992.1	2015.8
52.5°	137.0	163.4	442.7	698.2	1404.5	1583.7	1644.3	1715.4	1844.5	1913.0	1928.8
55°	126.5	150.2	376.8	606.0	1320.2	1499.3	1565.2	1633.7	1760.2	1818.2	1828.7
57.5°	121.2	139.6	321.5	519.1	1230.6	1404.5	1478.3	1541.5	1660.1	1704.9	1715.4
60°	113.3	131.7	279.3	445.3	1133.1	1314.9	1378.1	1441.4	1541.5	1578.4	1586.3
62.5°	105.4	126.5	247.7	374.2	1033.0	1209.5	1272.7	1330.7	1415.0	1441.4	1451.9
65°	100.1	121.2	224.0	321.5	930.1	1098.8	1162.1	1212.1	1280.7	1307.0	1312.3
67.5°	94.9	115.9	205.5	276.7	827.4	988.1	1035.6	1083.0	1135.7	1162.1	1164.7
70°	87.0	110.7	189.7	245.0	722.0	861.6	901.1	951.2	993.4	1006.6	1014.5
72.5°	81.7	102.8	179.2	221.3	613.9	740.4	777.3	806.3	843.2	856.3	856.3
75°	73.8	92.2	168.6	197.6	503.3	606.0	637.6	666.6	695.6	700.9	693.0
77.5°	65.9	81.7	144.9	166.0	392.6	479.6	505.9	521.7	545.4	550.7	553.3
80°	55.3	71.1	113.3	129.1	284.6	353.1	371.5	384.7	405.8	405.8	411.0
82.5°	42.2	55.3	81.7	92.2	192.3	242.4	258.2	266.1	279.3	279.3	279.3
85°	26.3	34.3	52.7	60.6	115.9	147.6	158.1	160.7	171.3	173.9	173.9
87.5°	13.2	18.4	34.3	36.9	60.6	76.4	76.4	81.7	81.7	79.0	76.4
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



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**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



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	819.5	819.5
2.5°	874.8	869.5
5°	1125.2	1130.5
7.5°	1515.2	1512.5
10°	1884.0	1907.8
12.5°	2152.8	2158.1
15°	2316.2	2326.7
17.5°	2379.4	2382.0
20°	2382.0	2376.8
22.5°	2353.1	2347.8
25°	2318.8	2316.2
27.5°	2287.2	2289.8
30°	2274.0	2281.9
32.5°	2274.0	2287.2
35°	2279.3	2292.5
37.5°	2276.6	2292.5
40°	2266.1	2284.5
42.5°	2237.1	2250.3
45°	2192.3	2208.1
47.5°	2134.4	2144.9
50°	2060.6	2071.1
52.5°	1968.4	1971.0
55°	1857.7	1868.2
57.5°	1739.1	1741.8
60°	1607.4	1615.3
62.5°	1467.7	1467.7
65°	1320.2	1325.4
67.5°	1167.3	1180.5
70°	1011.9	1014.5
72.5°	859.0	859.0
75°	700.9	703.5
77.5°	550.7	550.7
80°	408.4	411.0
82.5°	281.9	287.2
85°	176.5	176.5
87.5°	81.7	73.8
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





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**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



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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	2.97	3.76	4.03	4.82	6.26	16.17	16.95	17.22	18.01	19.45
	3H	3.67	4.38	4.73	5.45	6.90	18.01	18.71	19.07	19.78	21.23
	4H	3.97	4.64	5.04	5.71	7.17	18.65	19.32	19.72	20.39	21.85
	6H	4.21	4.83	5.30	5.90	7.38	19.08	19.70	20.16	20.77	22.25
	8H	4.28	4.87	5.37	5.96	7.43	19.20	19.79	20.29	20.88	22.35
	12H	4.29	4.85	5.39	5.94	7.43	19.27	19.83	20.36	20.91	22.41
4H	2H	10.19	10.86	11.27	11.93	13.39	16.43	17.10	17.51	18.17	19.63
	3H	11.75	12.31	12.83	13.41	14.88	18.47	19.03	19.56	20.13	21.61
	4H	11.84	12.35	12.93	13.44	14.94	19.24	19.76	20.33	20.84	22.34
	6H	11.85	12.29	12.95	13.40	14.89	19.78	20.22	20.88	21.33	22.82
	8H	11.82	12.23	12.92	13.34	14.84	19.94	20.36	21.04	21.46	22.97
	12H	11.77	12.15	12.89	13.26	14.77	20.04	20.41	21.15	21.53	23.04
8H	4H	13.28	13.69	14.38	14.80	16.30	19.29	19.71	20.40	20.81	22.32
	6H	13.52	13.86	14.64	15.01	16.51	19.92	20.27	21.05	21.41	22.91
	8H	13.54	13.84	14.67	14.96	16.48	20.15	20.45	21.28	21.57	23.09
	12H	13.50	13.76	14.63	14.89	16.45	20.29	20.55	21.42	21.68	23.24
12H	4H	13.42	13.80	14.54	14.91	16.42	19.24	19.62	20.36	20.73	22.24
	6H	13.78	14.08	14.91	15.20	16.73	19.91	20.21	21.04	21.33	22.86
	8H	13.84	14.11	14.98	15.23	16.79	20.14	20.40	21.27	21.52	23.08