

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: P937573

Luminaire Tested: SQ4-FB-100U-075D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937573
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-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

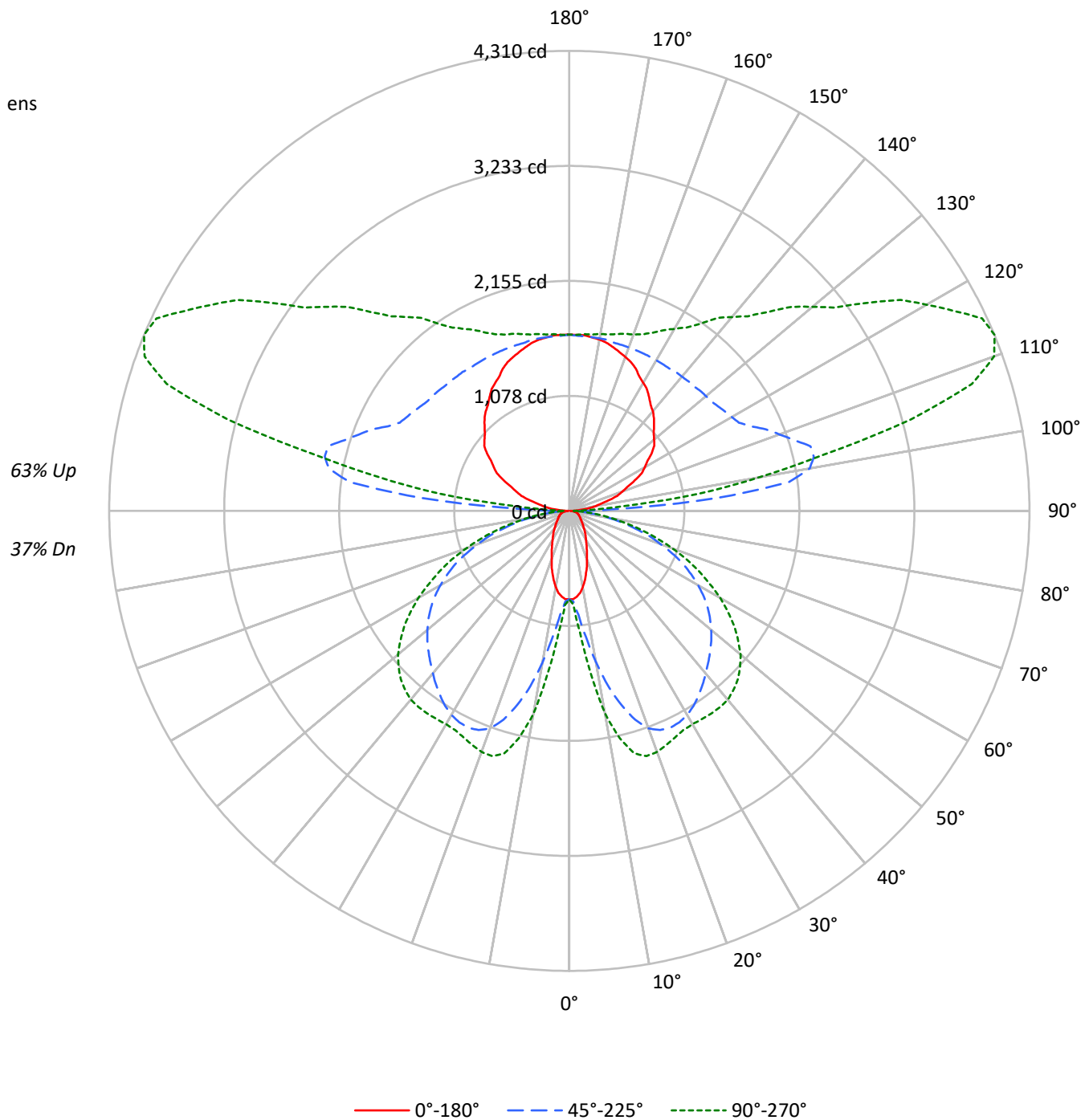
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17118.8 lumens
Efficiency: N/A
Efficacy: 116.0 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20	20	20	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	0	
RCR																			
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37	
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31	
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25	
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21	
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17	
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15	
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13	
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11	
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10	
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9	
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2563	2563	2563
5°	2504	2963	3445
10°	2272	4320	5711
15°	1932	5645	6896
20°	1574	6543	7028
25°	1313	6849	6885
30°	1108	6894	6872
35°	980	6781	7050
40°	854	6634	7233
45°	774	6528	7262
50°	711	6432	7141
55°	682	6290	6825
60°	699	6017	6325
65°	728	5600	5638
70°	777	4887	4763
75°	865	3988	3717
80°	951	2769	2505
85°	862	1471	1282

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7262 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.2	0.6
10°-20°	475.0	2.8
20°-30°	830.9	4.9
30°-40°	1069.5	6.2
40°-50°	1194.7	7.0
50°-60°	1144.2	6.7
60°-70°	906.8	5.3
70°-80°	533.2	3.1
80°-90°	154.4	0.9
90°-100°	804.8	4.7
100°-110°	2115.8	12.4
110°-120°	2193.9	12.8
120°-130°	1759.8	10.3
130°-140°	1380.8	8.1
140°-150°	1059.8	6.2
150°-160°	763.2	4.5
160°-170°	467.0	2.7
170°-180°	157.8	0.9
0°-30°	1413.0	8.3
0°-40°	2482.6	14.5
0°-60°	4821.4	28.2
0°-90°	6415.9	37.5
90°-120°	5114.6	29.9
90°-150°	9315.0	54.4
90°-180°	10703.0	62.5
0°-180°	17118.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	807	866	975	1103	1143	75
15°	605	1116	1881	2280	2352	168
25°	386	1266	2240	2339	2342	178
35°	261	1210	2110	2230	2318	163
45°	178	964	1865	2137	2232	138
55°	128	613	1582	1838	1889	117
65°	101	325	1175	1321	1340	100
75°	75	200	645	709	711	78
85°	27	61	160	176	178	28
90°	11	31	84	42	42	11
95°	106	417	1386	715	486	118
105°	381	577	2339	3551	3313	404
115°	677	822	1874	3738	4266	669
125°	942	1056	1704	2880	3397	836
135°	1122	1236	1651	2325	2636	868
145°	1302	1385	1630	1983	2139	816
155°	1472	1512	1630	1790	1842	676
165°	1588	1609	1630	1694	1715	448
175°	1651	1651	1641	1662	1662	157
180°	1651	1651	1651	1651	1651	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5	828.5
2.5°	828.5	828.5	833.8	836.5	841.8	844.5	849.8	855.1	871.1	873.8	879.1
5°	807.2	817.8	852.5	865.8	903.1	953.7	975.0	1009.7	1081.7	1103.0	1116.3
7.5°	775.2	799.2	884.4	905.8	999.0	1132.3	1188.2	1262.8	1377.4	1433.3	1478.6
10°	724.6	775.2	927.1	977.7	1129.6	1332.1	1436.0	1539.9	1713.0	1790.3	1819.6
12.5°	668.7	751.2	972.4	1041.7	1260.2	1555.9	1681.1	1795.6	1992.8	2096.7	2112.6
15°	604.7	716.6	1015.1	1116.3	1398.7	1742.3	1880.9	2022.1	2205.9	2280.5	2299.1
17.5°	548.8	690.0	1055.0	1161.6	1505.2	1910.2	2051.4	2168.6	2317.8	2368.4	2381.7
20°	479.5	647.4	1081.7	1220.2	1617.1	2032.7	2168.6	2259.2	2360.4	2392.4	2397.7
22.5°	428.9	602.1	1097.7	1241.5	1691.7	2107.3	2221.9	2293.8	2363.1	2373.7	2376.4
25°	386.3	551.4	1095.0	1265.5	1755.7	2152.6	2240.5	2293.8	2333.8	2339.1	2339.1
27.5°	346.3	495.5	1084.3	1270.8	1803.6	2163.3	2232.5	2269.8	2288.5	2299.1	2299.1
30°	311.7	442.2	1057.7	1260.2	1824.9	2152.6	2208.5	2227.2	2245.8	2261.8	2269.8
32.5°	285.0	391.6	1017.7	1238.8	1827.6	2126.0	2165.9	2176.6	2203.2	2240.5	2253.8
35°	261.1	341.0	972.4	1209.5	1811.6	2083.3	2110.0	2120.6	2173.9	2229.9	2248.5
37.5°	237.1	303.7	913.8	1158.9	1787.6	2032.7	2051.4	2070.0	2152.6	2219.2	2240.5
40°	213.1	271.7	844.5	1103.0	1750.3	1971.4	1987.4	2016.7	2126.0	2203.2	2224.5
42.5°	194.5	245.1	769.9	1044.4	1702.4	1902.2	1926.2	1968.8	2094.0	2176.6	2200.6
45°	178.5	218.4	690.0	964.4	1641.1	1830.3	1864.9	1923.5	2056.7	2136.6	2157.9
47.5°	162.5	199.8	607.4	881.8	1574.5	1758.3	1803.6	1870.2	2006.1	2083.3	2102.0
50°	149.2	181.2	524.8	793.9	1502.6	1681.1	1734.4	1803.6	1942.1	2014.1	2038.0
52.5°	138.5	165.2	447.6	706.0	1420.0	1601.2	1662.4	1734.4	1864.9	1934.2	1950.1
55°	127.9	151.8	381.0	612.7	1334.8	1515.9	1582.5	1651.8	1779.6	1838.2	1848.9
57.5°	122.5	141.2	325.0	524.8	1244.2	1420.0	1494.6	1558.5	1678.4	1723.7	1734.4
60°	114.6	133.2	282.4	450.2	1145.6	1329.4	1393.4	1457.3	1558.5	1595.8	1603.8
62.5°	106.6	127.9	250.4	378.3	1044.4	1222.9	1286.8	1345.4	1430.7	1457.3	1468.0
65°	101.2	122.5	226.4	325.0	940.4	1111.0	1174.9	1225.5	1294.8	1321.4	1326.8
67.5°	95.9	117.2	207.8	279.7	836.5	999.0	1047.0	1095.0	1148.3	1174.9	1177.6
70°	87.9	111.9	191.8	247.8	729.9	871.1	911.1	961.7	1004.3	1017.7	1025.7
72.5°	82.6	103.9	181.2	223.8	620.7	748.6	785.9	815.2	852.5	865.8	865.8
75°	74.6	93.2	170.5	199.8	508.8	612.7	644.7	674.0	703.3	708.6	700.6
77.5°	66.6	82.6	146.5	167.8	396.9	484.8	511.5	527.5	551.4	556.8	559.4
80°	55.9	71.9	114.6	130.5	287.7	357.0	375.6	388.9	410.3	410.3	415.6
82.5°	42.6	55.9	82.6	93.2	194.5	245.1	261.1	269.1	282.4	282.4	282.4
85°	26.6	34.6	53.3	61.3	117.2	149.2	159.8	162.5	173.2	175.8	175.8
87.5°	13.3	18.6	34.6	37.3	61.3	77.3	77.3	82.6	82.6	79.9	77.3
90°	11.1	20.0	28.8	31.0	48.8	72.4	84.2	74.9	56.1	42.1	42.1
92.5°	44.3	119.6	195.0	213.8	300.7	416.4	474.3	415.7	298.5	210.5	202.2
95°	106.4	244.3	382.2	416.6	739.8	1170.7	1386.2	1237.0	938.5	714.7	689.3
97.5°	183.9	305.6	427.2	457.7	996.5	1715.0	2074.3	1980.0	1791.4	1649.9	1601.7
100°	243.8	354.0	464.3	492.0	1089.9	1887.3	2286.0	2292.9	2306.7	2317.0	2259.5
102.5°	294.7	397.6	500.6	526.3	1132.8	1941.5	2345.8	2466.0	2706.3	2886.5	2837.2
105°	381.2	468.3	555.5	577.3	1164.6	1947.7	2339.2	2608.6	3147.3	3551.4	3524.9
107.5°	469.8	551.1	632.3	652.7	1170.5	1860.9	2206.1	2581.9	3333.5	3897.1	3903.5
110°	529.7	603.0	676.4	694.8	1161.6	1784.1	2095.3	2515.4	3355.6	3985.7	4013.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	588.4	658.4	728.2	745.7	1162.0	1717.0	1994.5	2424.5	3284.4	3929.2	3971.6
115°	677.0	741.6	806.0	822.2	1172.7	1640.0	1873.8	2287.9	3116.3	3737.5	3796.2
117.5°	764.6	823.2	881.8	896.4	1194.5	1591.9	1790.7	2164.4	2912.0	3472.7	3537.8
120°	815.5	870.7	925.9	939.7	1212.3	1575.8	1757.4	2099.0	2782.0	3294.3	3357.6
122.5°	865.4	921.1	976.7	990.7	1237.8	1567.2	1732.0	2039.5	2654.6	3115.9	3178.3
125°	941.9	992.6	1043.3	1056.0	1272.1	1560.2	1704.2	1965.5	2488.0	2879.9	2937.3
127.5°	1003.9	1055.1	1106.4	1119.1	1306.4	1556.1	1681.0	1905.3	2353.9	2690.4	2738.9
130°	1037.2	1092.3	1147.5	1161.2	1331.6	1558.6	1672.1	1871.8	2271.2	2570.8	2615.6
132.5°	1071.5	1126.7	1181.8	1195.6	1351.8	1560.1	1664.3	1843.0	2200.6	2468.8	2509.0
135°	1122.5	1172.7	1223.0	1235.5	1374.0	1558.7	1651.1	1800.8	2100.1	2324.7	2359.3
137.5°	1174.6	1224.3	1274.0	1286.4	1407.2	1568.3	1648.8	1775.4	2028.5	2218.4	2246.7
140°	1217.8	1263.6	1309.4	1320.8	1427.5	1569.9	1641.0	1750.3	1969.1	2133.1	2159.5
142.5°	1251.0	1293.4	1335.7	1346.3	1444.5	1575.5	1641.0	1737.1	1929.2	2073.2	2095.9
145°	1302.0	1338.9	1375.9	1385.1	1466.7	1575.6	1630.0	1708.5	1865.6	1983.4	2000.7
147.5°	1353.0	1388.9	1424.9	1433.9	1499.2	1586.4	1630.0	1691.8	1815.4	1908.1	1922.4
150°	1386.2	1418.7	1451.2	1459.3	1516.3	1592.1	1630.0	1682.2	1786.6	1864.9	1876.4
152.5°	1420.5	1445.1	1469.8	1475.9	1527.3	1595.7	1630.0	1674.6	1763.7	1830.5	1839.2
155°	1471.5	1489.7	1508.0	1512.5	1551.7	1603.9	1630.0	1665.4	1736.3	1789.5	1795.3
157.5°	1509.2	1526.9	1544.7	1549.1	1576.1	1612.1	1630.0	1657.5	1712.7	1754.1	1758.2
160°	1534.6	1548.5	1562.3	1565.7	1587.1	1615.7	1630.0	1653.6	1700.9	1736.3	1738.6
162.5°	1560.1	1570.4	1580.8	1583.4	1598.9	1619.6	1630.0	1649.9	1689.8	1719.7	1721.9
165°	1587.8	1597.2	1606.6	1608.9	1615.9	1625.3	1630.0	1644.3	1672.8	1694.2	1696.5
167.5°	1613.3	1617.8	1622.2	1623.4	1629.2	1637.1	1641.0	1650.4	1669.2	1683.2	1684.2
170°	1630.0	1634.5	1638.9	1640.0	1640.3	1640.8	1641.0	1650.4	1669.2	1683.2	1683.2
172.5°	1638.8	1639.8	1640.8	1641.0	1641.0	1641.0	1641.0	1648.4	1663.2	1674.3	1673.4
175°	1651.1	1651.1	1651.1	1651.1	1647.7	1643.2	1641.0	1645.7	1655.1	1662.1	1662.1
177.5°	1651.1	1651.1	1651.1	1651.1	1648.5	1645.0	1643.2	1647.0	1654.3	1659.8	1658.9
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	828.5	828.5
2.5°	884.4	879.1
5°	1137.6	1142.9
7.5°	1531.9	1529.2
10°	1904.8	1928.8
12.5°	2176.6	2181.9
15°	2341.7	2352.4
17.5°	2405.7	2408.3
20°	2408.3	2403.0
22.5°	2379.0	2373.7
25°	2344.4	2341.7
27.5°	2312.4	2315.1
30°	2299.1	2307.1
32.5°	2299.1	2312.4
35°	2304.4	2317.8
37.5°	2301.8	2317.8
40°	2291.1	2309.8
42.5°	2261.8	2275.1
45°	2216.5	2232.5
47.5°	2157.9	2168.6
50°	2083.3	2094.0
52.5°	1990.1	1992.8
55°	1878.2	1888.9
57.5°	1758.3	1761.0
60°	1625.1	1633.1
62.5°	1483.9	1483.9
65°	1334.8	1340.1
67.5°	1180.2	1193.6
70°	1023.1	1025.7
72.5°	868.5	868.5
75°	708.6	711.3
77.5°	556.8	556.8
80°	412.9	415.6
82.5°	285.0	290.4
85°	178.5	178.5
87.5°	82.6	74.6
90°	42.1	42.1
92.5°	168.6	135.2
95°	587.9	486.4
97.5°	1408.6	1215.6
100°	2029.5	1799.5
102.5°	2640.3	2443.3
105°	3419.0	3313.1
107.5°	3929.1	3954.7
110°	4123.6	4234.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4141.0	4310.4
115°	4031.2	4266.0
117.5°	3798.3	4058.9
120°	3610.7	3863.9
122.5°	3427.9	3677.7
125°	3167.3	3397.3
127.5°	2933.0	3127.0
130°	2794.8	2974.1
132.5°	2669.5	2830.1
135°	2497.7	2636.1
137.5°	2359.9	2473.3
140°	2265.5	2371.3
142.5°	2187.1	2278.2
145°	2069.7	2138.6
147.5°	1979.5	2036.6
150°	1922.8	1969.1
152.5°	1874.2	1909.2
155°	1818.4	1841.6
157.5°	1774.4	1790.7
160°	1748.0	1757.4
162.5°	1730.8	1739.7
165°	1705.9	1715.3
167.5°	1688.1	1692.0
170°	1683.2	1683.2
172.5°	1670.0	1666.5
175°	1662.1	1662.1
177.5°	1655.0	1651.1
180°	1651.1	1651.1



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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	3.01	3.80	4.06	4.86	6.29	16.20	16.99	17.26	18.05	19.49
	3H	3.71	4.42	4.77	5.48	6.94	18.04	18.75	19.10	19.82	21.27
	4H	4.01	4.68	5.08	5.75	7.21	18.69	19.36	19.76	20.43	21.89
	6H	4.25	4.87	5.33	5.94	7.42	19.12	19.74	20.20	20.81	22.28
	8H	4.32	4.90	5.40	6.00	7.46	19.24	19.83	20.33	20.92	22.39
	12H	4.33	4.89	5.42	5.97	7.47	19.31	19.87	20.40	20.95	22.44
4H	2H	10.23	10.90	11.31	11.97	13.43	16.47	17.14	17.55	18.21	19.67
	3H	11.79	12.35	12.87	13.44	14.92	18.51	19.07	19.60	20.17	21.64
	4H	11.88	12.39	12.97	13.48	14.98	19.28	19.79	20.37	20.88	22.38
	6H	11.88	12.33	12.98	13.44	14.93	19.82	20.26	20.92	21.37	22.86
	8H	11.86	12.27	12.96	13.37	14.88	19.98	20.39	21.08	21.50	23.00
	12H	11.81	12.19	12.93	13.30	14.81	20.07	20.45	21.19	21.56	23.08
8H	4H	13.32	13.73	14.42	14.84	16.34	19.33	19.75	20.43	20.85	22.35
	6H	13.56	13.90	14.68	15.04	16.55	19.96	20.31	21.09	21.45	22.95
	8H	13.57	13.87	14.70	15.00	16.52	20.18	20.48	21.31	21.61	23.13
	12H	13.54	13.80	14.67	14.93	16.48	20.33	20.59	21.46	21.71	23.27
12H	4H	13.46	13.83	14.58	14.95	16.46	19.28	19.66	20.40	20.77	22.28
	6H	13.82	14.12	14.95	15.24	16.76	19.95	20.25	21.07	21.37	22.89
	8H	13.88	14.15	15.02	15.27	16.83	20.17	20.44	21.31	21.56	23.12