

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: P937429

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937429
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-92765-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

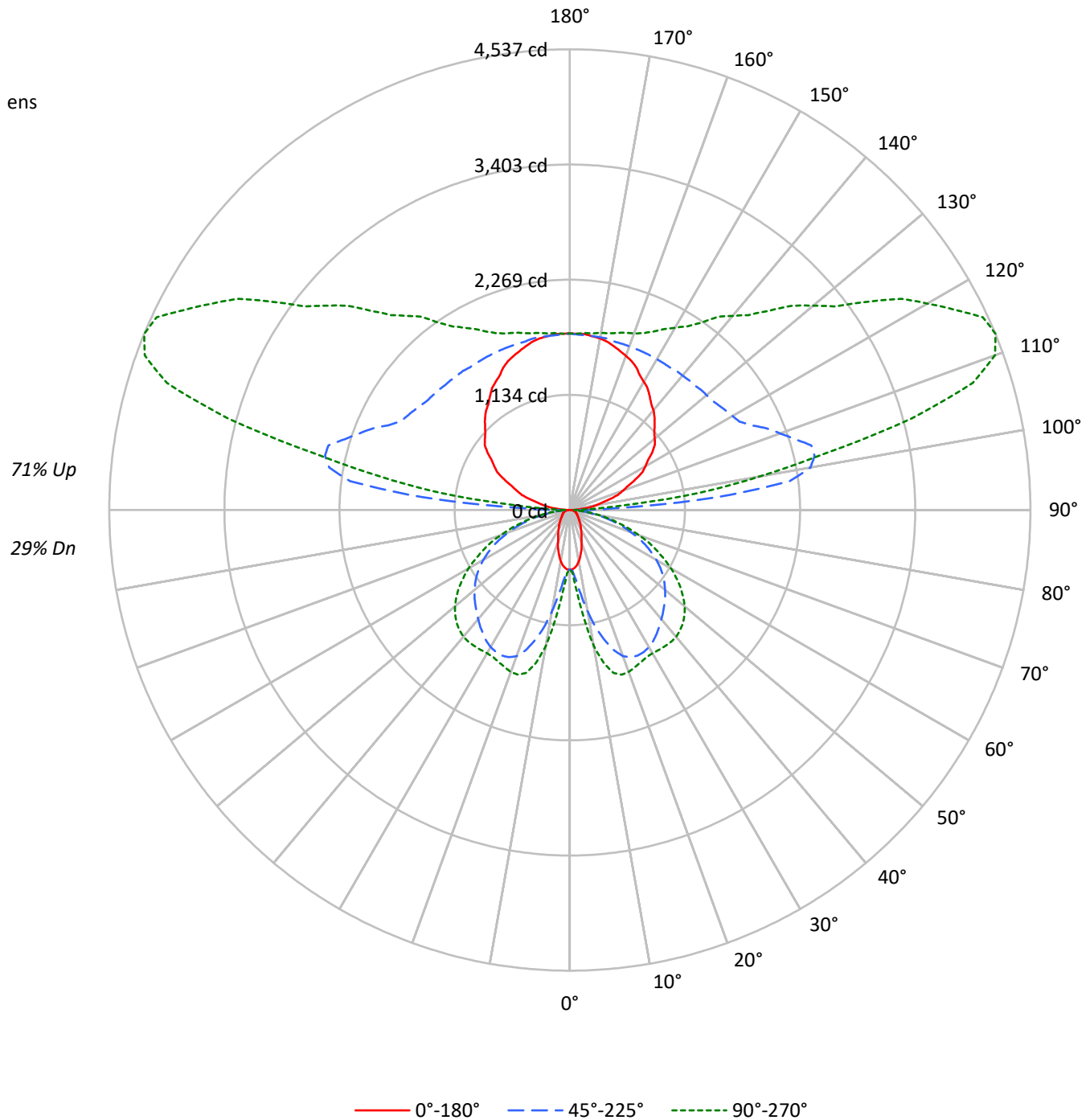
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15797.5 lumens
Efficiency: N/A
Efficacy: 127.8 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

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CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-12-5000K

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	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°	1809	1809	1809
5°	1768	2091	2432
10°	1604	3050	4032
15°	1364	3985	4868
20°	1111	4620	4961
25°	927	4835	4861
30°	782	4867	4851
35°	692	4787	4977
40°	603	4684	5106
45°	547	4608	5127
50°	502	4540	5041
55°	481	4441	4818
60°	493	4248	4465
65°	514	3954	3980
70°	549	3450	3363
75°	610	2815	2624
80°	672	1955	1768
85°	609	1039	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5127 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.7	0.5
10°-20°	335.3	2.1
20°-30°	586.6	3.7
30°-40°	755.1	4.8
40°-50°	843.4	5.3
50°-60°	807.8	5.1
60°-70°	640.2	4.1
70°-80°	376.4	2.4
80°-90°	111.2	0.7
90°-100°	847.1	5.4
100°-110°	2227.2	14.1
110°-120°	2309.3	14.6
120°-130°	1852.4	11.7
130°-140°	1453.4	9.2
140°-150°	1115.6	7.1
150°-160°	803.4	5.1
160°-170°	491.6	3.1
170°-180°	166.1	1.1
0°-30°	997.6	6.3
0°-40°	1752.6	11.1
0°-60°	3403.8	21.5
0°-90°	4531.6	28.7
90°-120°	5383.6	34.1
90°-150°	9804.9	62.1
90°-180°	11266.0	71.3
0°-180°	15797.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	570	611	688	779	807	53
15°	427	788	1328	1610	1661	119
25°	273	893	1582	1651	1653	126
35°	184	854	1490	1574	1636	115
45°	126	681	1316	1508	1576	97
55°	90	433	1117	1298	1334	82
65°	72	230	830	933	946	71
75°	53	141	455	500	502	55
85°	19	43	113	124	126	20
90°	12	33	89	44	44	11
95°	112	439	1459	752	512	124
105°	401	608	2462	3738	3487	425
115°	713	865	1972	3934	4490	704
125°	991	1112	1794	3031	3576	880
135°	1182	1300	1738	2447	2775	914
145°	1370	1458	1716	2088	2251	859
155°	1549	1592	1716	1884	1938	712
165°	1671	1694	1716	1783	1806	472
175°	1738	1738	1727	1750	1750	165
180°	1738	1738	1738	1738	1738	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9
2.5°	584.9	584.9	588.7	590.5	594.3	596.2	600.0	603.7	615.0	616.9	620.6
5°	569.9	577.4	601.9	611.2	637.6	673.3	688.3	712.8	763.6	778.6	788.1
7.5°	547.3	564.2	624.4	639.4	705.3	799.4	838.8	891.5	972.4	1011.8	1043.8
10°	511.6	547.3	654.5	690.3	797.4	940.4	1013.7	1087.1	1209.3	1263.9	1284.6
12.5°	472.0	530.4	686.4	735.3	889.6	1098.4	1186.8	1267.6	1406.8	1480.2	1491.4
15°	427.0	506.0	716.5	788.1	987.4	1230.0	1327.8	1427.5	1557.3	1609.9	1623.1
17.5°	387.4	487.1	744.8	820.0	1062.7	1348.5	1448.1	1531.0	1636.3	1672.0	1681.4
20°	338.6	457.1	763.6	861.4	1141.6	1435.1	1531.0	1594.9	1666.4	1688.9	1692.7
22.5°	302.8	425.0	774.9	876.5	1194.3	1487.7	1568.5	1619.4	1668.3	1675.7	1677.6
25°	272.7	389.3	773.0	893.4	1239.4	1519.6	1581.7	1619.4	1647.5	1651.3	1651.3
27.5°	244.5	349.9	765.4	897.1	1273.3	1527.2	1576.1	1602.4	1615.5	1623.1	1623.1
30°	220.0	312.2	746.6	889.6	1288.3	1519.6	1559.2	1572.4	1585.4	1596.8	1602.4
32.5°	201.2	276.5	718.4	874.5	1290.2	1500.9	1529.1	1536.6	1555.4	1581.7	1591.2
35°	184.3	240.8	686.4	853.9	1279.0	1470.8	1489.5	1497.1	1534.7	1574.2	1587.3
37.5°	167.4	214.4	645.1	818.1	1261.9	1435.1	1448.1	1461.3	1519.6	1566.7	1581.7
40°	150.5	191.8	596.2	778.6	1235.7	1391.8	1403.1	1423.7	1500.9	1555.4	1570.4
42.5°	137.3	173.0	543.5	737.3	1201.8	1342.9	1359.8	1389.9	1478.2	1536.6	1553.5
45°	126.0	154.2	487.1	680.8	1158.6	1292.0	1316.5	1357.9	1452.0	1508.3	1523.4
47.5°	114.7	141.0	428.8	622.5	1111.6	1241.3	1273.3	1320.3	1416.2	1470.8	1483.9
50°	105.3	127.9	370.5	560.4	1060.7	1186.8	1224.4	1273.3	1371.1	1421.9	1438.8
52.5°	97.8	116.7	315.9	498.4	1002.5	1130.3	1173.6	1224.4	1316.5	1365.4	1376.7
55°	90.3	107.2	268.9	432.6	942.3	1070.1	1117.2	1166.0	1256.3	1297.7	1305.2
57.5°	86.6	99.6	229.5	370.5	878.3	1002.5	1055.1	1100.2	1184.8	1216.9	1224.4
60°	80.9	94.0	199.4	317.9	808.7	938.5	983.7	1028.7	1100.2	1126.6	1132.2
62.5°	75.2	90.3	176.8	267.0	737.3	863.3	908.4	949.8	1009.9	1028.7	1036.3
65°	71.5	86.6	159.8	229.5	663.9	784.3	829.5	865.2	914.0	932.8	936.6
67.5°	67.7	82.7	146.7	197.5	590.5	705.3	739.2	773.0	810.6	829.5	831.3
70°	62.1	79.0	135.4	174.9	515.3	615.0	643.3	679.0	709.1	718.4	724.1
72.5°	58.3	73.4	127.9	158.0	438.2	528.5	554.8	575.5	601.9	611.2	611.2
75°	52.6	65.8	120.4	141.0	359.2	432.6	455.1	475.9	496.5	500.3	494.6
77.5°	47.0	58.3	103.5	118.5	280.2	342.3	361.1	372.4	389.3	393.0	394.9
80°	39.5	50.8	80.9	92.2	203.1	252.0	265.2	274.6	289.7	289.7	293.4
82.5°	30.1	39.5	58.3	65.8	137.3	173.0	184.3	189.9	199.4	199.4	199.4
85°	18.8	24.5	37.6	43.3	82.7	105.3	112.8	114.7	122.3	124.1	124.1
87.5°	9.4	13.2	24.5	26.4	43.3	54.6	54.6	58.3	58.3	56.5	54.6
90°	11.7	21.0	30.3	32.6	51.3	76.2	88.6	78.8	59.1	44.3	44.3
92.5°	46.6	125.9	205.3	225.1	316.5	438.3	499.2	437.5	314.2	221.6	212.8
95°	112.0	257.1	402.3	438.6	778.7	1232.3	1459.1	1302.0	987.9	752.3	725.5
97.5°	193.6	321.6	449.7	481.7	1048.9	1805.2	2183.4	2084.1	1885.6	1736.7	1685.9
100°	256.6	372.7	488.8	517.8	1147.3	1986.5	2406.2	2413.5	2428.0	2438.8	2378.4
102.5°	310.2	418.6	526.9	554.0	1192.4	2043.6	2469.2	2595.7	2848.6	3038.4	2986.5
105°	401.3	493.0	584.8	607.7	1225.9	2050.1	2462.2	2745.8	3312.9	3738.2	3710.3
107.5°	494.6	580.1	665.6	687.0	1232.0	1958.8	2322.2	2717.8	3508.8	4102.1	4108.8
110°	557.6	634.8	712.0	731.3	1222.7	1877.9	2205.5	2647.7	3532.1	4195.3	4224.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	619.3	693.0	766.6	785.0	1223.2	1807.3	2099.4	2552.0	3457.1	4135.9	4180.5
115°	712.6	780.6	848.4	865.4	1234.4	1726.3	1972.3	2408.3	3280.2	3934.1	3995.9
117.5°	804.8	866.5	928.2	943.6	1257.4	1675.6	1884.8	2278.3	3065.2	3655.4	3723.9
120°	858.4	916.5	974.6	989.1	1276.1	1658.6	1849.9	2209.4	2928.3	3467.6	3534.2
122.5°	911.0	969.6	1028.1	1042.8	1302.9	1649.7	1823.1	2146.7	2794.2	3279.8	3345.5
125°	991.4	1044.8	1098.2	1111.6	1339.0	1642.3	1793.9	2068.9	2618.9	3031.3	3091.8
127.5°	1056.7	1110.6	1164.6	1178.0	1375.1	1638.0	1769.4	2005.5	2477.7	2831.9	2882.9
130°	1091.7	1149.8	1207.8	1222.3	1401.6	1640.6	1760.1	1970.3	2390.7	2706.0	2753.2
132.5°	1127.9	1186.0	1244.0	1258.5	1422.9	1642.2	1751.8	1940.0	2316.4	2598.7	2640.9
135°	1181.6	1234.4	1287.3	1300.5	1446.3	1640.7	1737.9	1895.5	2210.6	2447.0	2483.4
137.5°	1236.3	1288.7	1341.0	1354.1	1481.2	1650.8	1735.6	1868.8	2135.2	2335.1	2364.9
140°	1281.9	1330.1	1378.2	1390.3	1502.6	1652.5	1727.3	1842.4	2072.6	2245.3	2273.1
142.5°	1316.8	1361.4	1406.0	1417.1	1520.5	1658.4	1727.3	1828.5	2030.6	2182.3	2206.2
145°	1370.5	1409.3	1448.2	1458.0	1543.9	1658.4	1715.7	1798.4	1963.7	2087.8	2105.9
147.5°	1424.1	1462.0	1499.8	1509.3	1578.1	1669.9	1715.7	1780.8	1910.9	2008.5	2023.5
150°	1459.1	1493.3	1527.5	1536.1	1596.0	1675.8	1715.7	1770.7	1880.5	1963.0	1975.1
152.5°	1495.2	1521.1	1547.1	1553.6	1607.6	1679.7	1715.7	1762.7	1856.4	1926.8	1936.0
155°	1548.9	1568.1	1587.3	1592.1	1633.3	1688.3	1715.7	1753.0	1827.6	1883.6	1889.7
157.5°	1588.5	1607.2	1625.9	1630.6	1659.0	1696.9	1715.7	1744.7	1802.8	1846.3	1850.6
160°	1615.4	1629.9	1644.4	1648.1	1670.6	1700.7	1715.7	1740.6	1790.3	1827.6	1830.1
162.5°	1642.2	1653.0	1664.0	1666.7	1683.0	1704.8	1715.7	1736.7	1778.7	1810.2	1812.5
165°	1671.3	1681.2	1691.1	1693.5	1700.9	1710.8	1715.7	1730.8	1760.8	1783.3	1785.8
167.5°	1698.2	1702.8	1707.5	1708.7	1714.9	1723.2	1727.3	1737.2	1757.0	1771.7	1772.8
170°	1715.7	1720.4	1725.1	1726.2	1726.6	1727.1	1727.3	1737.2	1757.0	1771.7	1771.7
172.5°	1725.0	1726.0	1727.1	1727.3	1727.3	1727.3	1727.3	1735.1	1750.7	1762.4	1761.5
175°	1737.9	1737.9	1737.9	1737.9	1734.3	1729.7	1727.3	1732.3	1742.1	1749.5	1749.5
177.5°	1737.9	1737.9	1737.9	1737.9	1735.2	1731.5	1729.7	1733.6	1741.4	1747.2	1746.1
180°	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	584.9	584.9
2.5°	624.4	620.6
5°	803.1	806.8
7.5°	1081.5	1079.6
10°	1344.8	1361.7
12.5°	1536.6	1540.3
15°	1653.2	1660.7
17.5°	1698.4	1700.2
20°	1700.2	1696.5
22.5°	1679.5	1675.7
25°	1655.1	1653.2
27.5°	1632.5	1634.4
30°	1623.1	1628.7
32.5°	1623.1	1632.5
35°	1626.9	1636.3
37.5°	1625.0	1636.3
40°	1617.4	1630.6
42.5°	1596.8	1606.2
45°	1564.8	1576.1
47.5°	1523.4	1531.0
50°	1470.8	1478.2
52.5°	1405.0	1406.8
55°	1326.0	1333.5
57.5°	1241.3	1243.2
60°	1147.3	1152.9
62.5°	1047.6	1047.6
65°	942.3	946.0
67.5°	833.2	842.5
70°	722.2	724.1
72.5°	613.2	613.2
75°	500.3	502.1
77.5°	393.0	393.0
80°	291.5	293.4
82.5°	201.2	205.0
85°	126.0	126.0
87.5°	58.3	52.6
90°	44.3	44.3
92.5°	177.5	142.3
95°	618.8	512.0
97.5°	1482.7	1279.5
100°	2136.3	1894.2
102.5°	2779.2	2571.8
105°	3598.8	3487.4
107.5°	4135.8	4162.7
110°	4340.5	4456.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4358.8	4537.2
115°	4243.2	4490.4
117.5°	3998.1	4272.4
120°	3800.6	4067.1
122.5°	3608.2	3871.1
125°	3333.9	3576.0
127.5°	3087.2	3291.5
130°	2941.8	3130.5
132.5°	2809.9	2978.9
135°	2629.0	2774.8
137.5°	2484.1	2603.3
140°	2384.6	2496.0
142.5°	2302.1	2398.0
145°	2178.5	2251.1
147.5°	2083.6	2143.7
150°	2023.9	2072.6
152.5°	1972.8	2009.6
155°	1914.1	1938.5
157.5°	1867.7	1884.8
160°	1840.0	1849.9
162.5°	1821.8	1831.2
165°	1795.7	1805.5
167.5°	1776.9	1781.0
170°	1771.7	1771.7
172.5°	1757.8	1754.2
175°	1749.5	1749.5
177.5°	1742.0	1737.9
180°	1737.9	1737.9



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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	0.70	1.42	1.81	2.53	4.07	13.89	14.61	15.00	15.72	17.26
	3H	1.39	2.03	2.52	3.16	4.72	15.72	16.37	16.85	17.49	19.05
	4H	1.68	2.29	2.82	3.42	4.98	16.36	16.98	17.50	18.10	19.66
	6H	1.92	2.49	3.07	3.61	5.19	16.79	17.35	17.93	18.48	20.06
	8H	1.99	2.52	3.13	3.66	5.23	16.91	17.45	18.06	18.59	20.16
	12H	2.00	2.51	3.15	3.64	5.24	16.98	17.48	18.13	18.62	20.21
4H	2H	7.90	8.51	9.04	9.64	11.20	14.14	14.76	15.29	15.88	17.44
	3H	9.46	9.97	10.60	11.12	12.69	16.18	16.69	17.33	17.84	19.42
	4H	9.54	10.01	10.69	11.15	12.75	16.95	17.42	18.10	18.55	20.15
	6H	9.55	9.95	10.70	11.11	12.70	17.48	17.88	18.64	19.04	20.63
	8H	9.52	9.90	10.67	11.05	12.65	17.64	18.02	18.80	19.17	20.78
	12H	9.47	9.81	10.64	10.97	12.58	17.73	18.07	18.90	19.24	20.85
8H	4H	10.98	11.36	12.14	12.51	14.11	16.99	17.37	18.15	18.52	20.13
	6H	11.21	11.53	12.39	12.72	14.32	17.62	17.93	18.80	19.13	20.73
	8H	11.23	11.50	12.41	12.67	14.30	17.84	18.11	19.02	19.28	20.91
	12H	11.19	11.43	12.38	12.60	14.26	17.98	18.22	19.17	19.39	21.04
12H	4H	11.12	11.46	12.29	12.62	14.23	16.94	17.28	18.11	18.44	20.05
	6H	11.47	11.75	12.65	12.92	14.54	17.60	17.87	18.78	19.05	20.67
	8H	11.53	11.77	12.72	12.94	14.60	17.83	18.07	19.01	19.24	20.89