

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: P938347

Luminaire Tested: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938347
REPORT IS A COMBINATION OF REPORTS P933646 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

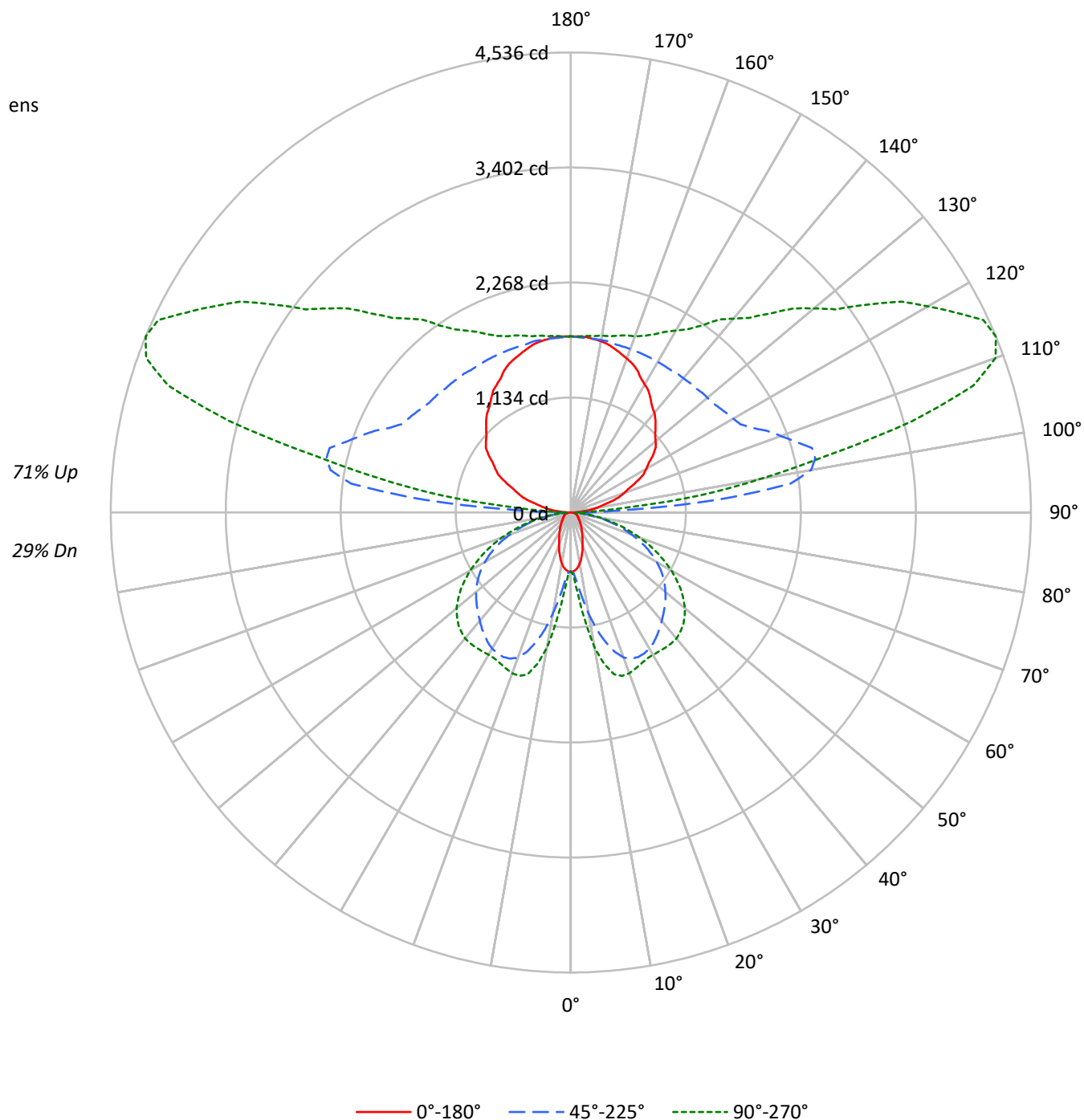
Lumens per Lamp: N/A
Luminaire Lumens: 15766.6 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 127.2
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: P938347

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	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	17			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	10	9			6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2697	2697	2697
5°	2635	3118	3626
10°	2390	4545	6011
15°	2032	5938	7259
20°	1654	6881	7397
25°	1380	7201	7247
30°	1163	7246	7233
35°	1029	7126	7421
40°	897	6969	7614
45°	812	6855	7644
50°	745	6752	7517
55°	713	6601	7184
60°	730	6311	6658
65°	759	5870	5934
70°	809	5119	5013
75°	896	4174	3912
80°	981	2895	2636
85°	871	1536	1350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7644 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	0.5
10°-20°	333.3	2.1
20°-30°	583.0	3.7
30°-40°	750.5	4.8
40°-50°	838.3	5.3
50°-60°	802.9	5.1
60°-70°	636.3	4.0
70°-80°	374.2	2.4
80°-90°	110.6	0.7
90°-100°	846.9	5.4
100°-110°	2226.4	14.1
110°-120°	2308.5	14.6
120°-130°	1851.7	11.7
130°-140°	1452.9	9.2
140°-150°	1115.2	7.1
150°-160°	803.1	5.1
160°-170°	491.4	3.1
170°-180°	166.0	1.1
0°-30°	991.6	6.3
0°-40°	1742.1	11.0
0°-60°	3383.4	21.5
0°-90°	4504.5	28.6
90°-120°	5381.8	34.1
90°-150°	9801.7	62.2
90°-180°	11262.0	71.4
0°-180°	15766.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	566	608	684	774	802	52
15°	424	783	1320	1600	1651	118
25°	271	888	1572	1641	1643	125
35°	183	849	1481	1565	1626	114
45°	125	677	1309	1499	1567	97
55°	90	430	1110	1290	1326	82
65°	71	228	824	927	940	70
75°	52	140	452	497	499	55
85°	19	43	112	123	125	20
90°	12	33	89	44	44	11
95°	112	438	1459	752	512	124
105°	401	608	2461	3737	3486	425
115°	712	865	1972	3933	4489	704
125°	991	1111	1793	3030	3575	880
135°	1181	1300	1737	2446	2774	914
145°	1370	1458	1715	2087	2250	858
155°	1548	1592	1715	1883	1938	711
165°	1671	1693	1715	1783	1805	472
175°	1737	1737	1727	1749	1749	165
180°	1737	1737	1737	1737	1737	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4
2.5°	581.4	581.4	585.1	587.0	590.7	592.6	596.3	600.1	611.3	613.2	616.9
5°	566.4	573.9	598.2	607.6	633.7	669.2	684.2	708.5	759.0	773.9	783.3
7.5°	544.0	560.8	620.6	635.6	701.0	794.5	833.8	886.1	966.5	1005.7	1037.5
10°	508.5	544.0	650.6	686.1	792.6	934.7	1007.6	1080.6	1202.1	1256.3	1276.9
12.5°	469.2	527.2	682.3	730.9	884.2	1091.8	1179.7	1260.1	1398.4	1471.3	1482.5
15°	424.4	502.9	712.2	783.3	981.4	1222.7	1319.9	1419.0	1548.0	1600.3	1613.4
17.5°	385.1	484.2	740.3	815.1	1056.2	1340.5	1439.5	1521.8	1626.5	1662.0	1671.3
20°	336.5	454.3	759.0	856.2	1134.8	1426.5	1521.8	1585.4	1656.4	1678.8	1682.6
22.5°	301.0	422.5	770.2	871.1	1187.2	1478.8	1559.2	1609.7	1658.3	1665.7	1667.6
25°	271.1	387.0	768.3	888.0	1232.0	1510.6	1572.3	1609.7	1637.7	1641.4	1641.4
27.5°	243.0	347.7	760.9	891.7	1265.7	1518.1	1566.7	1592.8	1605.9	1613.4	1613.4
30°	218.7	310.3	742.2	884.2	1280.6	1510.6	1549.8	1562.9	1576.0	1587.2	1592.8
32.5°	200.0	274.8	714.1	869.3	1282.5	1491.9	1519.9	1527.4	1546.1	1572.3	1581.6
35°	183.2	239.3	682.3	848.7	1271.3	1462.0	1480.7	1488.1	1525.5	1564.8	1577.9
37.5°	166.4	213.1	641.2	813.2	1254.5	1426.5	1439.5	1452.6	1510.6	1557.3	1572.3
40°	149.6	190.7	592.6	773.9	1228.3	1383.5	1394.7	1415.2	1491.9	1546.1	1561.1
42.5°	136.5	172.0	540.3	732.8	1194.6	1334.9	1351.7	1381.6	1469.5	1527.4	1544.2
45°	125.3	153.3	484.2	676.7	1151.7	1284.4	1308.7	1349.8	1443.3	1499.4	1514.3
47.5°	114.0	140.2	426.2	618.8	1104.9	1233.9	1265.7	1312.4	1407.8	1462.0	1475.1
50°	104.7	127.1	368.3	557.1	1054.3	1179.7	1217.1	1265.7	1362.9	1413.4	1430.2
52.5°	97.2	115.9	314.1	495.4	996.4	1123.6	1166.6	1217.1	1308.7	1357.3	1368.5
55°	89.7	106.6	267.3	430.0	936.6	1063.8	1110.5	1159.1	1248.9	1290.0	1297.5
57.5°	86.0	99.1	228.1	368.3	873.0	996.4	1048.7	1093.7	1177.8	1209.6	1217.1
60°	80.4	93.5	198.2	315.9	803.8	932.8	977.7	1022.6	1093.7	1119.9	1125.5
62.5°	74.8	89.7	175.7	265.5	732.8	858.1	902.9	944.1	1003.9	1022.6	1030.0
65°	71.0	86.0	158.9	228.1	659.9	779.5	824.4	859.9	908.5	927.2	931.0
67.5°	67.3	82.3	145.8	196.3	587.0	701.0	734.7	768.3	805.7	824.4	826.3
70°	61.7	78.5	134.6	173.9	512.2	611.3	639.3	674.9	704.8	714.1	719.7
72.5°	58.0	72.9	127.1	157.0	435.6	525.3	551.5	572.0	598.2	607.6	607.6
75°	52.3	65.4	119.6	140.2	357.1	430.0	452.4	473.0	493.5	497.3	491.7
77.5°	46.7	58.0	102.8	117.8	278.5	340.2	358.9	370.1	387.0	390.7	392.6
80°	39.3	50.5	80.4	91.6	201.9	250.5	263.6	272.9	287.9	287.9	291.6
82.5°	29.9	39.3	58.0	65.4	136.5	172.0	183.2	188.8	198.2	198.2	198.2
85°	18.7	24.3	37.4	43.0	82.3	104.7	112.2	114.0	121.5	123.4	123.4
87.5°	9.3	13.1	24.3	26.2	43.0	54.2	54.2	58.0	58.0	56.1	54.2
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	316.4	438.2	499.0	437.3	314.1	221.5	212.7
95°	112.0	257.0	402.1	438.4	778.4	1231.8	1458.6	1301.6	987.6	752.1	725.3
97.5°	193.6	321.5	449.6	481.6	1048.6	1804.7	2182.7	2083.5	1885.0	1736.1	1685.4
100°	256.5	372.6	488.7	517.7	1147.0	1985.9	2405.4	2412.7	2427.2	2438.0	2377.5
102.5°	310.1	418.5	526.7	553.8	1192.0	2042.9	2468.4	2594.8	2847.7	3037.3	2985.5
105°	401.1	492.8	584.6	607.5	1225.4	2049.3	2461.4	2744.9	3311.8	3737.0	3709.1
107.5°	494.4	579.9	665.3	686.7	1231.7	1958.2	2321.4	2716.8	3507.7	4100.7	4107.5
110°	557.4	634.6	711.8	731.0	1222.3	1877.4	2204.9	2646.9	3530.9	4194.0	4223.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	619.1	692.7	766.3	784.7	1222.7	1806.7	2098.7	2551.1	3455.9	4134.5	4179.1
115°	712.4	780.3	848.2	865.2	1234.0	1725.7	1971.7	2407.4	3279.0	3932.8	3994.6
117.5°	804.5	866.2	927.9	943.3	1256.9	1675.1	1884.2	2277.5	3064.2	3654.1	3722.7
120°	858.2	916.2	974.2	988.7	1275.6	1658.0	1849.2	2208.6	2927.4	3466.5	3533.0
122.5°	910.6	969.2	1027.7	1042.4	1302.4	1649.1	1822.4	2146.0	2793.3	3278.7	3344.4
125°	991.1	1044.4	1097.8	1111.2	1338.5	1641.6	1793.2	2068.1	2617.9	3030.3	3090.8
127.5°	1056.4	1110.2	1164.2	1177.6	1374.7	1637.4	1768.7	2004.8	2476.9	2830.9	2882.0
130°	1091.4	1149.4	1207.5	1221.9	1401.1	1639.9	1759.4	1969.5	2389.9	2705.0	2752.2
132.5°	1127.5	1185.6	1243.6	1258.1	1422.5	1641.7	1751.3	1939.3	2315.5	2597.7	2640.0
135°	1181.1	1234.0	1286.9	1300.1	1445.8	1640.1	1737.2	1894.8	2209.9	2446.2	2482.6
137.5°	1236.0	1288.3	1340.6	1353.6	1480.8	1650.2	1735.0	1868.2	2134.5	2334.2	2364.1
140°	1281.4	1329.6	1377.8	1389.8	1502.2	1651.9	1726.8	1841.8	2072.0	2244.5	2272.4
142.5°	1316.3	1360.9	1405.5	1416.6	1520.0	1657.9	1726.8	1827.8	2029.9	2181.5	2205.4
145°	1370.0	1408.9	1447.8	1457.5	1543.4	1657.9	1715.1	1797.7	1963.1	2087.1	2105.2
147.5°	1423.7	1461.5	1499.4	1508.8	1577.6	1669.3	1715.1	1780.1	1910.2	2007.7	2022.8
150°	1458.6	1492.8	1527.0	1535.5	1595.4	1675.2	1715.1	1770.1	1879.9	1962.3	1974.5
152.5°	1494.8	1520.7	1546.7	1553.1	1607.1	1679.1	1715.1	1762.0	1855.8	1926.1	1935.3
155°	1548.4	1567.6	1586.8	1591.5	1632.7	1687.6	1715.1	1752.4	1827.1	1883.1	1889.1
157.5°	1588.1	1606.8	1625.4	1630.0	1658.4	1696.2	1715.1	1744.2	1802.2	1845.8	1850.1
160°	1614.9	1629.4	1643.9	1647.5	1670.0	1700.0	1715.1	1740.0	1789.8	1827.1	1829.5
162.5°	1641.7	1652.6	1663.5	1666.2	1682.5	1704.2	1715.1	1736.1	1778.1	1809.6	1811.9
165°	1670.8	1680.6	1690.5	1692.9	1700.3	1710.1	1715.1	1730.1	1760.2	1782.8	1785.2
167.5°	1697.6	1702.3	1707.0	1708.2	1714.3	1722.7	1726.8	1736.6	1756.3	1771.1	1772.1
170°	1715.1	1719.8	1724.4	1725.7	1726.0	1726.5	1726.8	1736.6	1756.3	1771.1	1771.1
172.5°	1724.4	1725.5	1726.5	1726.8	1726.8	1726.8	1726.8	1734.5	1750.1	1761.7	1760.8
175°	1737.2	1737.2	1737.2	1737.2	1733.8	1729.1	1726.8	1731.7	1741.5	1748.9	1748.9
177.5°	1737.2	1737.2	1737.2	1737.2	1734.5	1730.9	1729.1	1733.0	1740.8	1746.6	1745.6
180°	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	581.4	581.4
2.5°	620.6	616.9
5°	798.2	802.0
7.5°	1075.0	1073.1
10°	1336.7	1353.5
12.5°	1527.4	1531.1
15°	1643.3	1650.8
17.5°	1688.2	1690.0
20°	1690.0	1686.3
22.5°	1669.5	1665.7
25°	1645.2	1643.3
27.5°	1622.7	1624.6
30°	1613.4	1619.0
32.5°	1613.4	1622.7
35°	1617.1	1626.5
37.5°	1615.3	1626.5
40°	1607.8	1620.9
42.5°	1587.2	1596.6
45°	1555.4	1566.7
47.5°	1514.3	1521.8
50°	1462.0	1469.5
52.5°	1396.5	1398.4
55°	1318.0	1325.5
57.5°	1233.9	1235.8
60°	1140.4	1146.0
62.5°	1041.3	1041.3
65°	936.6	940.3
67.5°	828.1	837.5
70°	717.9	719.7
72.5°	609.4	609.4
75°	497.3	499.1
77.5°	390.7	390.7
80°	289.8	291.6
82.5°	200.0	203.8
85°	125.3	125.3
87.5°	58.0	52.3
90°	44.3	44.3
92.5°	177.5	142.3
95°	618.6	511.8
97.5°	1482.2	1279.1
100°	2135.5	1893.5
102.5°	2778.2	2571.0
105°	3597.7	3486.3
107.5°	4134.4	4161.3
110°	4339.1	4455.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4357.3	4535.6
115°	4241.8	4488.9
117.5°	3996.8	4271.0
120°	3799.4	4065.7
122.5°	3607.1	3869.9
125°	3332.9	3574.9
127.5°	3086.2	3290.4
130°	2940.9	3129.5
132.5°	2808.9	2977.9
135°	2628.2	2773.8
137.5°	2483.2	2602.4
140°	2383.8	2495.2
142.5°	2301.3	2397.2
145°	2177.8	2250.3
147.5°	2082.9	2143.0
150°	2023.3	2072.0
152.5°	1972.1	2009.0
155°	1913.5	1937.8
157.5°	1867.1	1884.2
160°	1839.4	1849.2
162.5°	1821.2	1830.5
165°	1795.1	1804.9
167.5°	1776.3	1780.4
170°	1771.1	1771.1
172.5°	1757.2	1753.6
175°	1748.9	1748.9
177.5°	1741.4	1737.2
180°	1737.2	1737.2

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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	2.06	2.78	3.18	3.89	5.44	15.24	15.96	16.36	17.07	18.62
	3H	2.76	3.40	3.88	4.52	6.08	17.07	17.71	18.19	18.84	20.40
	4H	3.05	3.66	4.18	4.78	6.35	17.71	18.32	18.84	19.44	21.01
	6H	3.29	3.85	4.44	4.98	6.56	18.13	18.69	19.27	19.82	21.40
	8H	3.36	3.89	4.50	5.03	6.60	18.25	18.78	19.39	19.92	21.50
	12H	3.37	3.88	4.52	5.01	6.61	18.31	18.82	19.46	19.95	21.55
4H	2H	9.26	9.87	10.40	10.99	12.56	15.50	16.11	16.64	17.23	18.80
	3H	10.81	11.33	11.96	12.47	14.05	17.53	18.04	18.68	19.19	20.77
	4H	10.90	11.37	12.05	12.51	14.11	18.29	18.76	19.44	19.90	21.50
	6H	10.90	11.31	12.06	12.47	14.06	18.82	19.22	19.98	20.38	21.97
	8H	10.88	11.25	12.03	12.41	14.01	18.98	19.36	20.14	20.51	22.11
	12H	10.83	11.17	12.00	12.33	13.94	19.07	19.41	20.24	20.57	22.18
8H	4H	12.33	12.71	13.49	13.86	15.47	18.34	18.71	19.49	19.87	21.47
	6H	12.57	12.88	13.75	14.08	15.68	18.96	19.27	20.14	20.47	22.07
	8H	12.59	12.86	13.77	14.03	15.65	19.18	19.45	20.36	20.62	22.25
	12H	12.55	12.79	13.73	13.96	15.61	19.32	19.55	20.50	20.72	22.38
12H	4H	12.47	12.81	13.64	13.98	15.59	18.28	18.63	19.46	19.79	21.40
	6H	12.83	13.10	14.01	14.27	15.89	18.94	19.21	20.12	20.39	22.01
	8H	12.89	13.13	14.08	14.30	15.95	19.16	19.40	20.35	20.57	22.23