

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: P937721

Luminaire Tested: SQ4-FB-100U-125D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937721
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-927-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

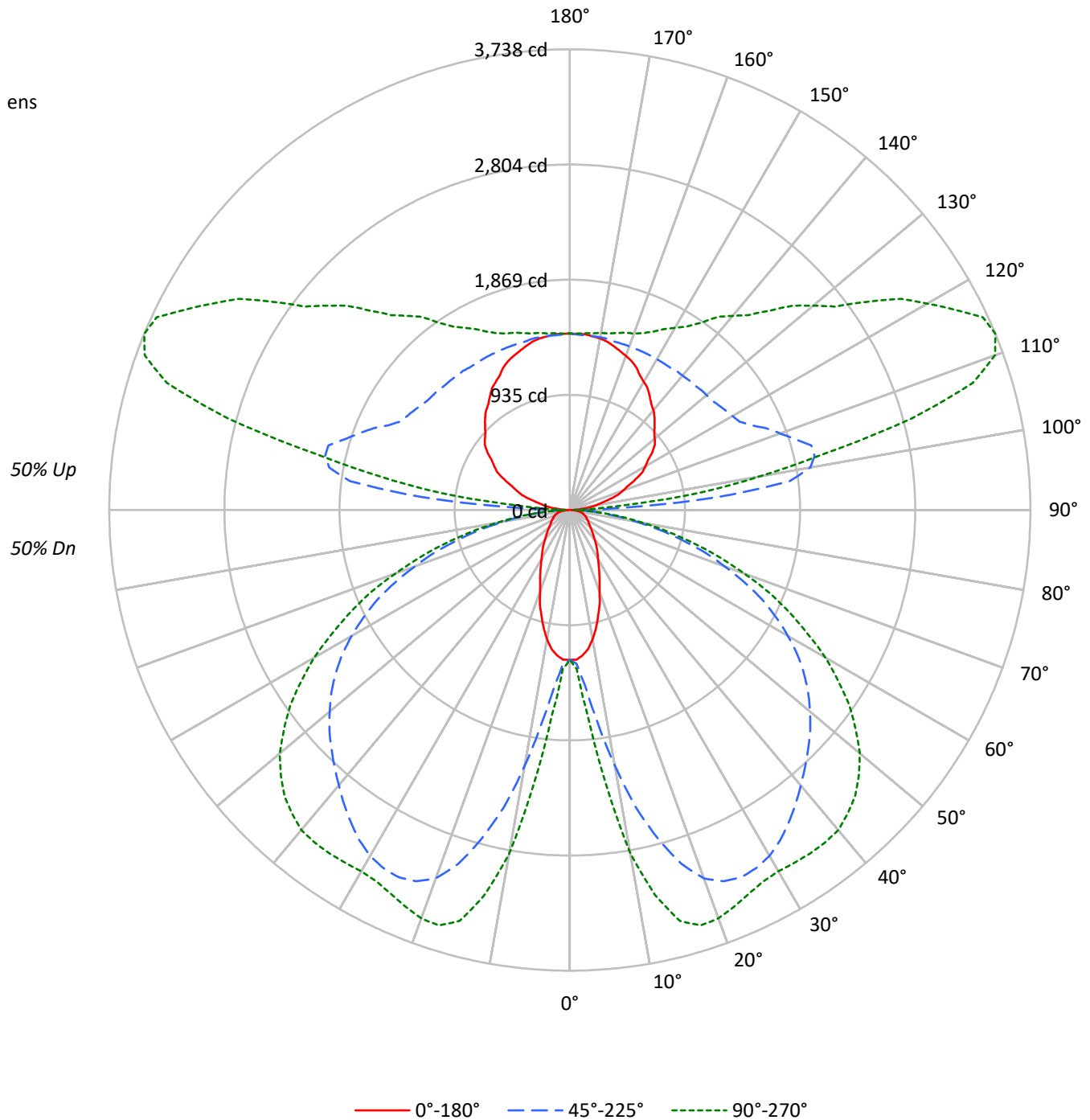
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18691.0 lumens
Efficiency: N/A
Efficacy: 90.6 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: General Diffuse

Input Watts (W): 206.4
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				
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3761	3761	3761
5°	3675	4347	5054
10°	3335	6339	8379
15°	2835	8283	10118
20°	2309	9601	10312
25°	1927	10049	10102
30°	1626	10116	10083
35°	1438	9950	10344
40°	1254	9735	10614
45°	1136	9578	10655
50°	1043	9437	10479
55°	1000	9230	10014
60°	1025	8828	9280
65°	1068	8217	8273
70°	1141	7171	6989
75°	1268	5852	5454
80°	1396	4063	3675
85°	1267	2159	1881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10655 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.3	0.8
10°-20°	697.0	3.7
20°-30°	1219.1	6.5
30°-40°	1569.4	8.4
40°-50°	1752.9	9.4
50°-60°	1678.9	9.0
60°-70°	1330.5	7.1
70°-80°	782.4	4.2
80°-90°	222.8	1.2
90°-100°	697.8	3.7
100°-110°	1834.7	9.8
110°-120°	1902.4	10.2
120°-130°	1525.9	8.2
130°-140°	1197.3	6.4
140°-150°	919.0	4.9
150°-160°	661.8	3.5
160°-170°	404.9	2.2
170°-180°	136.8	0.7
0°-30°	2073.3	11.1
0°-40°	3642.7	19.5
0°-60°	7074.5	37.8
0°-90°	9410.2	50.3
90°-120°	4434.9	23.7
90°-150°	8077.2	43.2
90°-180°	9281.0	49.7
0°-180°	18691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1216	1216	1216	1216	1216	
5°	1184	1270	1431	1618	1677	109
15°	887	1638	2760	3346	3452	247
25°	567	1857	3288	3432	3436	261
35°	383	1775	3096	3272	3401	239
45°	262	1415	2736	3135	3276	203
55°	188	899	2322	2697	2772	171
65°	148	477	1724	1939	1966	147
75°	109	293	946	1040	1044	115
85°	39	90	234	258	262	41
90°	10	27	73	36	36	11
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8	1215.8
2.5°	1215.8	1215.8	1223.5	1227.5	1235.2	1239.2	1247.0	1254.8	1278.3	1282.2	1290.0
5°	1184.4	1200.0	1250.9	1270.4	1325.2	1399.5	1430.7	1481.6	1587.0	1618.4	1637.9
7.5°	1137.5	1172.7	1297.8	1329.1	1465.9	1661.4	1743.4	1852.9	2021.0	2103.1	2169.6
10°	1063.3	1137.5	1360.4	1434.6	1657.4	1954.5	2107.0	2259.4	2513.5	2626.9	2669.9
12.5°	981.2	1102.3	1426.8	1528.4	1849.0	2282.9	2466.6	2634.7	2924.0	3076.5	3099.9
15°	887.3	1051.5	1489.3	1637.9	2052.3	2556.6	2759.8	2967.0	3236.7	3346.2	3373.5
17.5°	805.3	1012.5	1548.0	1704.3	2208.6	2802.8	3010.0	3181.9	3400.9	3475.2	3494.7
20°	703.6	949.9	1587.0	1790.3	2372.8	2982.6	3181.9	3314.8	3463.5	3510.4	3518.1
22.5°	629.3	883.4	1610.5	1821.6	2482.2	3092.1	3260.2	3365.7	3467.3	3482.9	3486.9
25°	566.8	809.2	1606.6	1856.8	2576.0	3158.5	3287.5	3365.7	3424.3	3432.1	3432.1
27.5°	508.2	727.1	1591.0	1864.6	2646.4	3174.2	3275.8	3330.5	3357.9	3373.5	3373.5
30°	457.4	648.9	1551.9	1849.0	2677.7	3158.5	3240.6	3268.0	3295.4	3318.8	3330.5
32.5°	418.3	574.7	1493.3	1817.7	2681.6	3119.4	3178.1	3193.7	3232.8	3287.5	3307.1
35°	383.1	500.3	1426.8	1774.7	2658.2	3056.9	3095.9	3111.6	3189.8	3271.9	3299.2
37.5°	347.9	445.6	1340.8	1700.5	2623.0	2982.6	3010.0	3037.3	3158.5	3256.3	3287.5
40°	312.7	398.7	1239.2	1618.4	2568.3	2892.7	2916.1	2959.2	3119.4	3232.8	3264.0
42.5°	285.4	359.7	1129.7	1532.4	2497.9	2791.1	2826.3	2888.8	3072.5	3193.7	3228.9
45°	261.9	320.6	1012.5	1415.1	2407.9	2685.5	2736.3	2822.4	3017.8	3135.1	3166.3
47.5°	238.5	293.2	891.3	1293.9	2310.2	2580.0	2646.4	2744.1	2943.6	3056.9	3084.2
50°	218.9	265.8	770.1	1164.9	2204.7	2466.6	2544.8	2646.4	2849.7	2955.3	2990.4
52.5°	203.3	242.4	656.7	1035.9	2083.5	2349.3	2439.3	2544.8	2736.3	2838.0	2861.4
55°	187.6	222.8	559.0	899.1	1958.4	2224.2	2322.0	2423.7	2611.2	2697.2	2712.9
57.5°	179.8	207.2	476.9	770.1	1825.5	2083.5	2193.0	2286.8	2462.7	2529.1	2544.8
60°	168.1	195.4	414.3	660.7	1680.9	1950.6	2044.4	2138.3	2286.8	2341.5	2353.3
62.5°	156.4	187.6	367.4	555.1	1532.4	1794.3	1888.0	1974.0	2099.2	2138.3	2153.9
65°	148.5	179.8	332.3	476.9	1379.9	1630.1	1723.9	1798.2	1899.8	1938.9	1946.7
67.5°	140.8	172.0	304.9	410.5	1227.5	1465.9	1536.2	1606.6	1684.8	1723.9	1727.8
70°	129.0	164.2	281.4	363.5	1071.1	1278.3	1336.9	1411.2	1473.7	1493.3	1505.0
72.5°	121.2	152.5	265.8	328.3	910.8	1098.5	1153.2	1196.2	1250.9	1270.4	1270.4
75°	109.4	136.8	250.2	293.2	746.6	899.1	946.0	989.0	1032.0	1039.8	1028.1
77.5°	97.7	121.2	215.0	246.2	582.4	711.5	750.5	774.0	809.2	817.0	820.9
80°	82.1	105.6	168.1	191.6	422.2	523.8	551.2	570.7	602.0	602.0	609.8
82.5°	62.5	82.1	121.2	136.8	285.4	359.7	383.1	394.8	414.3	414.3	414.3
85°	39.1	50.8	78.2	89.9	172.0	218.9	234.5	238.5	254.1	258.0	258.0
87.5°	19.6	27.3	50.8	54.7	89.9	113.3	113.3	121.2	121.2	117.3	113.3
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



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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



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1215.8	1215.8
2.5°	1297.8	1290.0
5°	1669.2	1677.0
7.5°	2247.7	2243.8
10°	2794.9	2830.1
12.5°	3193.7	3201.5
15°	3436.0	3451.7
17.5°	3529.9	3533.8
20°	3533.8	3526.0
22.5°	3490.8	3482.9
25°	3440.0	3436.0
27.5°	3393.1	3397.0
30°	3373.5	3385.2
32.5°	3373.5	3393.1
35°	3381.3	3400.9
37.5°	3377.5	3400.9
40°	3361.8	3389.2
42.5°	3318.8	3338.3
45°	3252.3	3275.8
47.5°	3166.3	3181.9
50°	3056.9	3072.5
52.5°	2920.1	2924.0
55°	2755.9	2771.5
57.5°	2580.0	2583.9
60°	2384.5	2396.2
62.5°	2177.3	2177.3
65°	1958.4	1966.3
67.5°	1731.7	1751.3
70°	1501.1	1505.0
72.5°	1274.4	1274.4
75°	1039.8	1043.7
77.5°	817.0	817.0
80°	605.9	609.8
82.5°	418.3	426.1
85°	261.9	261.9
87.5°	121.2	109.4
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	5.64	6.55	6.59	7.52	8.78	18.84	19.74	19.78	20.71	21.97
	3H	6.35	7.16	7.31	8.14	9.43	20.68	21.50	21.64	22.47	23.76
	4H	6.65	7.42	7.62	8.40	9.70	21.33	22.10	22.31	23.09	24.38
	6H	6.91	7.61	7.89	8.60	9.91	21.77	22.48	22.75	23.47	24.78
	8H	6.97	7.65	7.96	8.65	9.96	21.90	22.57	22.89	23.58	24.88
	12H	6.99	7.64	7.99	8.63	9.96	21.97	22.61	22.96	23.61	24.94
4H	2H	12.87	13.64	13.85	14.62	15.92	19.11	19.88	20.09	20.87	22.16
	3H	14.44	15.09	15.43	16.10	17.41	21.17	21.81	22.16	22.82	24.13
	4H	14.54	15.13	15.54	16.13	17.46	21.94	22.53	22.94	23.54	24.87
	6H	14.55	15.06	15.56	16.09	17.42	22.49	23.00	23.50	24.02	25.35
	8H	14.53	15.01	15.54	16.03	17.37	22.65	23.13	23.66	24.15	25.49
	12H	14.49	14.92	15.52	15.96	17.31	22.75	23.18	23.78	24.22	25.57
8H	4H	15.99	16.47	17.00	17.49	18.83	22.01	22.48	23.01	23.50	24.85
	6H	16.24	16.63	17.27	17.69	19.03	22.64	23.04	23.68	24.10	25.44
	8H	16.25	16.60	17.30	17.65	19.01	22.86	23.21	23.91	24.26	25.62
	12H	16.22	16.53	17.27	17.57	18.98	23.01	23.32	24.06	24.36	25.77
12H	4H	16.14	16.57	17.17	17.60	18.95	21.96	22.39	22.99	23.43	24.78
	6H	16.50	16.85	17.54	17.89	19.25	22.62	22.97	23.67	24.02	25.38
	8H	16.57	16.87	17.61	17.92	19.32	22.86	23.17	23.91	24.21	25.61