

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: P937301

Luminaire Tested: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937301
REPORT IS A COMBINATION OF REPORTS P933495 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-075U-100D-B40-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

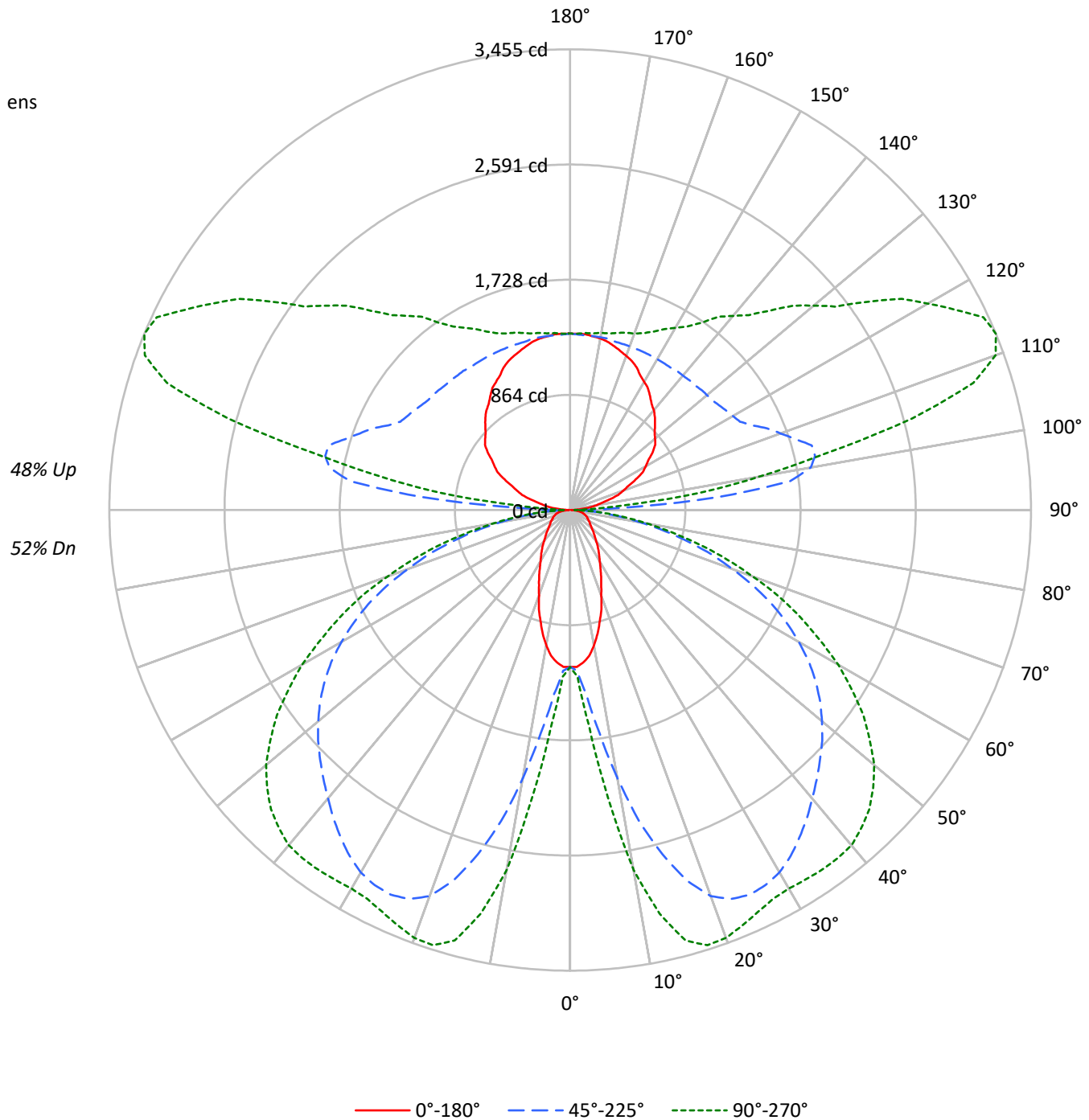
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17690.4 lumens
Efficiency: N/A
Efficacy: 115.2 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): 153.6
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

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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
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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	47	47	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	39	39	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	32	32	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	27	27	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	23	23	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	20	20	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	18	18	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	16	16	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	14	14	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	12	12	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3641	3641	3641
5°	3559	4210	4894
10°	3229	6138	8114
15°	2745	8021	9798
20°	2236	9297	9985
25°	1866	9731	9782
30°	1574	9795	9764
35°	1392	9635	10016
40°	1214	9426	10277
45°	1100	9274	10317
50°	1010	9138	10147
55°	968	8938	9697
60°	992	8549	8987
65°	1034	7956	8011
70°	1104	6944	6768
75°	1229	5666	5282
80°	1352	3934	3559
85°	1225	2091	1821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10317 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	0.9
10°-20°	674.9	3.8
20°-30°	1180.5	6.7
30°-40°	1519.6	8.6
40°-50°	1697.4	9.6
50°-60°	1625.7	9.2
60°-70°	1288.4	7.3
70°-80°	757.6	4.3
80°-90°	215.5	1.2
90°-100°	645.1	3.6
100°-110°	1695.9	9.6
110°-120°	1758.4	9.9
120°-130°	1410.5	8.0
130°-140°	1106.7	6.3
140°-150°	849.4	4.8
150°-160°	611.7	3.5
160°-170°	374.3	2.1
170°-180°	126.5	0.7
0°-30°	2007.7	11.3
0°-40°	3527.3	19.9
0°-60°	6850.4	38.7
0°-90°	9111.9	51.5
90°-120°	4099.3	23.2
90°-150°	7466.0	42.2
90°-180°	8578.0	48.5
0°-180°	17690.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1147	1230	1385	1567	1624	106
15°	859	1586	2672	3240	3342	239
25°	549	1798	3183	3323	3327	253
35°	371	1718	2998	3168	3293	232
45°	254	1370	2650	3036	3172	196
55°	182	871	2248	2612	2684	166
65°	144	462	1669	1877	1904	143
75°	106	284	916	1007	1011	111
85°	38	87	227	250	254	40
90°	9	25	68	34	34	10
95°	85	334	1111	573	390	95
105°	306	463	1875	2846	2656	324
115°	543	659	1502	2996	3419	536
125°	755	846	1366	2308	2723	670
135°	900	990	1323	1863	2113	696
145°	1044	1110	1306	1590	1714	654
155°	1179	1212	1306	1434	1476	542
165°	1273	1290	1306	1358	1375	359
175°	1323	1323	1315	1332	1332	126
180°	1323	1323	1323	1323	1323	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2
2.5°	1177.2	1177.2	1184.8	1188.6	1196.1	1200.0	1207.5	1215.0	1237.8	1241.6	1249.1
5°	1147.0	1162.0	1211.3	1230.2	1283.2	1355.1	1385.4	1434.6	1536.8	1567.1	1586.0
7.5°	1101.5	1135.6	1256.7	1287.0	1419.4	1608.7	1688.2	1794.2	1957.0	2036.4	2100.8
10°	1029.6	1101.5	1317.2	1389.1	1605.0	1892.6	2040.3	2187.9	2433.9	2543.6	2585.3
12.5°	950.1	1067.4	1381.6	1480.1	1790.4	2210.5	2388.5	2551.3	2831.4	2979.0	3001.7
15°	859.2	1018.2	1442.1	1586.0	1987.3	2475.6	2672.4	2873.0	3134.2	3240.1	3266.7
17.5°	779.8	980.4	1499.0	1650.3	2138.6	2714.0	2914.7	3081.2	3293.1	3365.0	3384.0
20°	681.3	919.9	1536.8	1733.6	2297.6	2888.1	3081.2	3209.9	3353.7	3399.1	3406.7
22.5°	609.4	855.5	1559.5	1763.9	2403.6	2994.1	3156.8	3259.1	3357.5	3372.7	3376.4
25°	548.8	783.6	1555.7	1798.0	2494.5	3058.5	3183.4	3259.1	3315.9	3323.4	3323.4
27.5°	492.1	704.0	1540.6	1805.5	2562.6	3073.6	3172.0	3225.0	3251.5	3266.7	3266.7
30°	442.8	628.4	1502.7	1790.4	2592.9	3058.5	3137.9	3164.5	3190.9	3213.7	3225.0
32.5°	405.0	556.4	1446.0	1760.2	2596.6	3020.7	3077.4	3092.6	3130.4	3183.4	3202.3
35°	370.9	484.5	1381.6	1718.5	2573.9	2960.0	2997.9	3013.0	3088.8	3168.2	3194.8
37.5°	336.9	431.6	1298.3	1646.6	2539.9	2888.1	2914.7	2941.1	3058.5	3153.1	3183.4
40°	302.8	386.1	1200.0	1567.1	2486.9	2801.1	2823.7	2865.4	3020.7	3130.4	3160.7
42.5°	276.3	348.3	1094.0	1483.8	2418.7	2702.6	2736.7	2797.3	2975.2	3092.6	3126.6
45°	253.6	310.4	980.4	1370.2	2331.7	2600.5	2649.6	2732.9	2922.2	3035.8	3066.0
47.5°	230.9	283.9	863.0	1253.0	2237.1	2498.3	2562.6	2657.2	2850.3	2960.0	2986.6
50°	212.0	257.4	745.7	1128.0	2134.9	2388.5	2464.2	2562.6	2759.5	2861.7	2895.8
52.5°	196.8	234.6	635.9	1003.1	2017.5	2274.9	2362.0	2464.2	2649.6	2748.1	2770.8
55°	181.7	215.7	541.3	870.6	1896.4	2153.8	2248.5	2346.8	2528.6	2611.8	2626.9
57.5°	174.1	200.6	461.8	745.7	1767.7	2017.5	2123.5	2214.4	2384.7	2449.0	2464.2
60°	162.7	189.3	401.2	639.7	1627.6	1888.8	1979.7	2070.5	2214.4	2267.4	2278.7
62.5°	151.4	181.7	355.8	537.5	1483.8	1737.4	1828.3	1911.5	2032.7	2070.5	2085.6
65°	143.8	174.1	321.7	461.8	1336.2	1578.4	1669.2	1741.3	1839.6	1877.4	1885.1
67.5°	136.3	166.6	295.3	397.5	1188.6	1419.4	1487.6	1555.7	1631.4	1669.2	1673.1
70°	124.9	159.0	272.6	352.0	1037.1	1237.8	1294.6	1366.5	1427.1	1446.0	1457.3
72.5°	117.4	147.6	257.4	317.9	881.9	1063.7	1116.7	1158.3	1211.3	1230.2	1230.2
75°	106.0	132.5	242.3	283.9	722.9	870.6	916.0	957.7	999.3	1006.9	995.5
77.5°	94.6	117.4	208.2	238.5	564.0	688.9	726.8	749.5	783.6	791.1	794.9
80°	79.5	102.2	162.7	185.5	408.8	507.2	533.7	552.7	582.9	582.9	590.5
82.5°	60.5	79.5	117.4	132.5	276.3	348.3	370.9	382.3	401.2	401.2	401.2
85°	37.8	49.2	75.7	87.1	166.6	212.0	227.1	230.9	246.0	249.8	249.8
87.5°	18.9	26.5	49.2	53.0	87.1	109.7	109.7	117.4	117.4	113.5	109.7
90°	8.9	15.9	23.0	24.8	39.1	58.1	67.5	60.0	45.0	33.7	33.7
92.5°	35.5	95.9	156.3	171.4	240.9	333.7	380.1	333.1	239.2	168.7	162.1
95°	85.3	195.8	306.4	334.0	593.0	938.4	1111.0	991.5	752.3	572.8	552.5
97.5°	147.5	245.0	342.5	366.8	798.8	1374.6	1662.6	1586.9	1435.7	1322.4	1283.7
100°	195.4	283.8	372.3	394.3	873.6	1512.6	1832.2	1837.7	1848.8	1857.1	1811.0
102.5°	236.3	318.8	401.2	421.8	907.9	1556.1	1880.2	1976.5	2169.1	2313.6	2274.1
105°	305.5	375.4	445.2	462.7	933.4	1561.0	1874.9	2090.8	2522.6	2846.5	2825.3
107.5°	376.6	441.7	506.8	523.1	938.2	1491.6	1768.3	2069.5	2671.8	3123.5	3128.7
110°	424.5	483.3	542.2	556.9	931.0	1430.0	1679.5	2016.2	2689.6	3194.6	3216.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	471.6	527.6	583.7	597.7	931.4	1376.3	1598.7	1943.2	2632.5	3149.3	3183.2
115°	542.6	594.3	646.1	658.9	939.9	1314.6	1501.8	1833.8	2497.7	2995.6	3042.7
117.5°	612.8	659.8	706.7	718.4	957.4	1275.9	1435.2	1734.8	2333.9	2783.3	2835.6
120°	653.7	697.9	742.0	753.1	971.6	1262.9	1408.5	1682.2	2229.7	2640.4	2691.1
122.5°	693.6	738.2	782.8	794.0	992.1	1256.1	1388.1	1634.6	2127.6	2497.4	2547.5
125°	754.9	795.6	836.3	846.4	1019.6	1250.5	1365.9	1575.4	1994.1	2308.2	2354.4
127.5°	804.7	845.7	886.8	897.0	1047.2	1247.2	1347.3	1527.1	1886.7	2156.4	2195.3
130°	831.3	875.5	919.7	930.7	1067.2	1249.1	1340.2	1500.2	1820.3	2060.4	2096.3
132.5°	858.8	903.0	947.2	958.2	1083.4	1250.5	1333.9	1477.2	1763.8	1978.8	2010.9
135°	899.7	939.9	980.2	990.2	1101.3	1249.3	1323.3	1443.3	1683.3	1863.3	1891.0
137.5°	941.4	981.3	1021.2	1031.1	1128.0	1257.0	1321.5	1423.0	1625.9	1778.0	1800.7
140°	976.0	1012.7	1049.4	1058.6	1144.2	1258.3	1315.3	1403.0	1578.2	1709.6	1730.8
142.5°	1002.7	1036.7	1070.6	1079.1	1157.8	1262.8	1315.3	1392.3	1546.2	1661.7	1679.9
145°	1043.5	1073.1	1102.7	1110.2	1175.6	1262.8	1306.4	1369.4	1495.3	1589.8	1603.6
147.5°	1084.4	1113.2	1142.1	1149.2	1201.7	1271.5	1306.4	1356.0	1455.0	1529.3	1540.8
150°	1111.0	1137.1	1163.2	1169.7	1215.2	1276.1	1306.4	1348.3	1431.9	1494.7	1503.9
152.5°	1138.6	1158.3	1178.0	1183.0	1224.1	1279.0	1306.4	1342.2	1413.6	1467.2	1474.1
155°	1179.4	1194.0	1208.6	1212.3	1243.7	1285.5	1306.4	1334.9	1391.7	1434.3	1439.0
157.5°	1209.6	1223.8	1238.1	1241.6	1263.2	1292.0	1306.4	1328.5	1372.7	1405.9	1409.1
160°	1230.0	1241.1	1252.2	1255.0	1272.2	1295.0	1306.4	1325.3	1363.3	1391.7	1393.6
162.5°	1250.5	1258.8	1267.0	1269.1	1281.5	1298.1	1306.4	1322.4	1354.4	1378.4	1380.2
165°	1272.7	1280.2	1287.6	1289.5	1295.2	1302.7	1306.4	1317.9	1340.7	1357.9	1359.8
167.5°	1293.1	1296.6	1300.2	1301.1	1305.9	1312.2	1315.3	1322.8	1337.8	1349.0	1349.8
170°	1306.4	1310.0	1313.6	1314.5	1314.7	1315.1	1315.3	1322.8	1337.8	1349.0	1349.0
172.5°	1313.5	1314.3	1315.1	1315.3	1315.3	1315.3	1315.3	1321.2	1333.1	1342.0	1341.3
175°	1323.3	1323.3	1323.3	1323.3	1320.7	1317.1	1315.3	1319.0	1326.6	1332.2	1332.2
177.5°	1323.3	1323.3	1323.3	1323.3	1321.2	1318.5	1317.1	1320.1	1326.0	1330.4	1329.6
180°	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3	1323.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1177.2	1177.2
2.5°	1256.7	1249.1
5°	1616.3	1623.9
7.5°	2176.5	2172.7
10°	2706.5	2740.5
12.5°	3092.6	3100.1
15°	3327.2	3342.4
17.5°	3418.0	3421.9
20°	3421.9	3414.3
22.5°	3380.2	3372.7
25°	3331.0	3327.2
27.5°	3285.6	3289.4
30°	3266.7	3278.0
32.5°	3266.7	3285.6
35°	3274.2	3293.1
37.5°	3270.4	3293.1
40°	3255.3	3281.8
42.5°	3213.7	3232.6
45°	3149.3	3172.0
47.5°	3066.0	3081.2
50°	2960.0	2975.2
52.5°	2827.6	2831.4
55°	2668.6	2683.7
57.5°	2498.3	2502.0
60°	2309.0	2320.4
62.5°	2108.4	2108.4
65°	1896.4	1904.0
67.5°	1676.9	1695.8
70°	1453.5	1457.3
72.5°	1234.0	1234.0
75°	1006.9	1010.7
77.5°	791.1	791.1
80°	586.8	590.5
82.5°	405.0	412.6
85°	253.6	253.6
87.5°	117.4	106.0
90°	33.7	33.7
92.5°	135.2	108.4
95°	471.2	389.9
97.5°	1129.0	974.3
100°	1626.7	1442.3
102.5°	2116.2	1958.3
105°	2740.4	2655.5
107.5°	3149.2	3169.7
110°	3305.1	3393.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3319.0	3454.8
115°	3231.0	3419.3
117.5°	3044.3	3253.2
120°	2894.0	3096.9
122.5°	2747.5	2947.7
125°	2538.7	2723.0
127.5°	2350.8	2506.3
130°	2240.0	2383.8
132.5°	2139.6	2268.3
135°	2002.0	2112.8
137.5°	1891.5	1982.3
140°	1815.7	1900.5
142.5°	1753.0	1826.0
145°	1658.8	1714.0
147.5°	1586.5	1632.4
150°	1541.1	1578.2
152.5°	1502.2	1530.2
155°	1457.5	1476.0
157.5°	1422.2	1435.2
160°	1401.1	1408.5
162.5°	1387.2	1394.4
165°	1367.3	1374.8
167.5°	1353.0	1356.2
170°	1349.0	1349.0
172.5°	1338.5	1335.8
175°	1332.2	1332.2
177.5°	1326.5	1323.3
180°	1323.3	1323.3



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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	6.57	7.51	8.76	18.83	19.74	19.76	20.70	21.95
	3H	6.35	7.17	7.29	8.14	9.41	20.68	21.50	21.62	22.47	23.74
	4H	6.65	7.43	7.61	8.40	9.68	21.33	22.11	22.29	23.08	24.36
	6H	6.90	7.62	7.87	8.60	9.89	21.77	22.49	22.74	23.46	24.75
	8H	6.97	7.66	7.95	8.65	9.94	21.89	22.58	22.87	23.57	24.86
	12H	6.99	7.64	7.97	8.63	9.94	21.96	22.62	22.95	23.61	24.92
4H	2H	12.87	13.65	13.83	14.62	15.90	19.11	19.89	20.08	20.86	22.14
	3H	14.44	15.09	15.42	16.09	17.39	21.17	21.82	22.14	22.82	24.11
	4H	14.54	15.13	15.52	16.13	17.44	21.94	22.54	22.92	23.53	24.85
	6H	14.55	15.07	15.55	16.08	17.40	22.49	23.00	23.48	24.02	25.33
	8H	14.53	15.01	15.53	16.02	17.35	22.65	23.13	23.65	24.15	25.47
	12H	14.49	14.92	15.51	15.95	17.29	22.75	23.19	23.77	24.21	25.55
8H	4H	15.99	16.47	16.99	17.48	18.81	22.00	22.49	23.00	23.50	24.83
	6H	16.23	16.63	17.26	17.69	19.01	22.64	23.04	23.66	24.09	25.42
	8H	16.25	16.61	17.29	17.64	18.99	22.86	23.22	23.90	24.25	25.60
	12H	16.22	16.53	17.26	17.57	18.96	23.01	23.32	24.05	24.36	25.75
12H	4H	16.14	16.57	17.16	17.60	18.93	21.96	22.39	22.98	23.42	24.76
	6H	16.49	16.85	17.53	17.89	19.23	22.62	22.98	23.66	24.02	25.36
	8H	16.57	16.88	17.60	17.91	19.30	22.86	23.17	23.90	24.20	25.59