

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: P937769

Luminaire Tested: SQ4-FB-100U-125D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937769
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-935-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

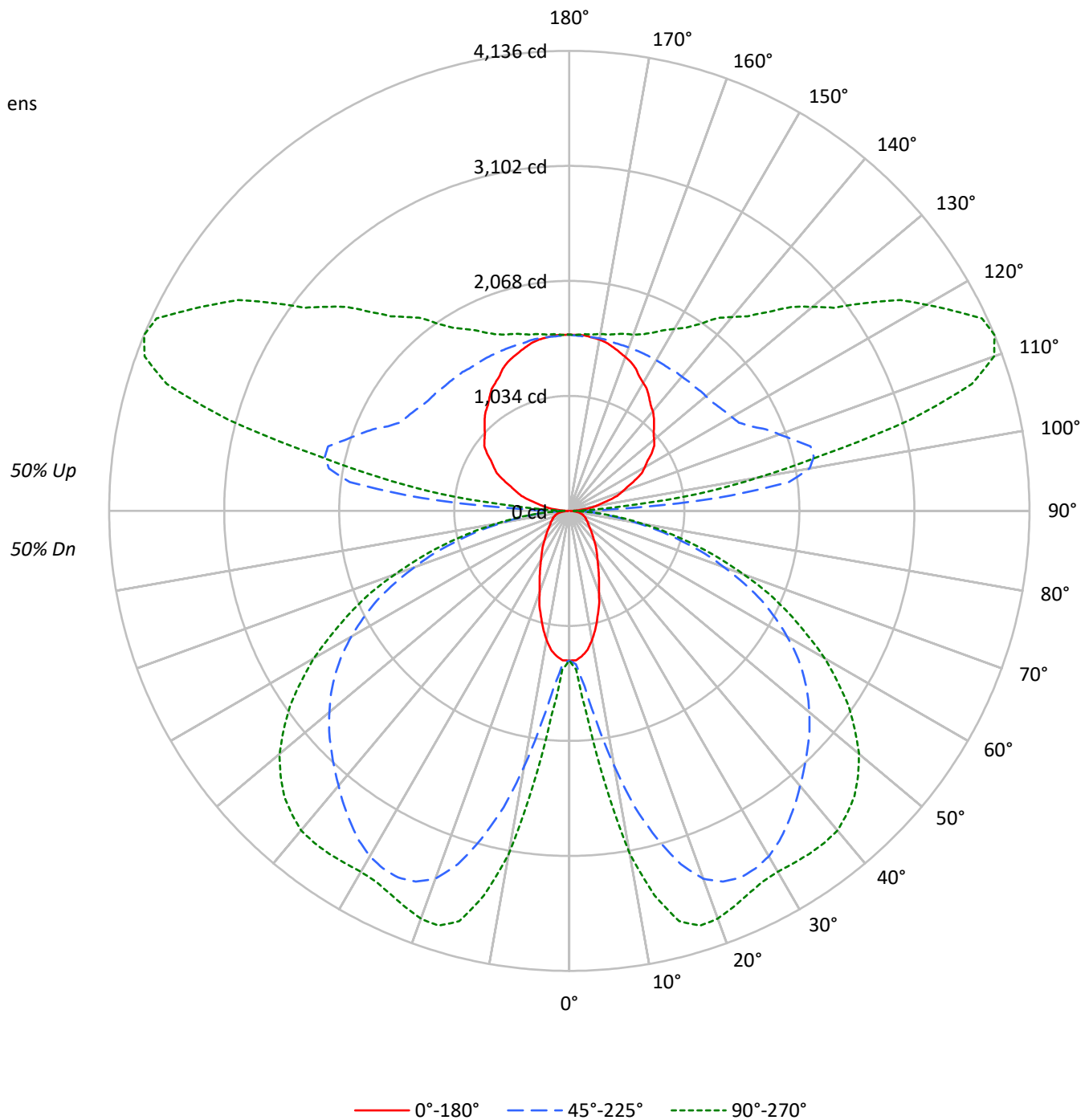
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20681.5 lumens
Efficiency: N/A
Efficacy: 100.2 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): 206.4
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	
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4161	4161	4161
5°	4066	4810	5593
10°	3690	7013	9272
15°	3137	9165	11196
20°	2555	10623	11410
25°	2132	11120	11178
30°	1799	11193	11157
35°	1591	11010	11445
40°	1387	10771	11744
45°	1257	10598	11790
50°	1154	10442	11595
55°	1106	10213	11081
60°	1134	9769	10269
65°	1182	9092	9154
70°	1262	7934	7733
75°	1404	6475	6035
80°	1544	4496	4067
85°	1403	2389	2081

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11790 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.0	0.8
10°-20°	771.2	3.7
20°-30°	1348.9	6.5
30°-40°	1736.5	8.4
40°-50°	1939.6	9.4
50°-60°	1857.7	9.0
60°-70°	1472.2	7.1
70°-80°	865.7	4.2
80°-90°	246.5	1.2
90°-100°	772.2	3.7
100°-110°	2030.1	9.8
110°-120°	2105.0	10.2
120°-130°	1688.5	8.2
130°-140°	1324.8	6.4
140°-150°	1016.9	4.9
150°-160°	732.3	3.5
160°-170°	448.1	2.2
170°-180°	151.4	0.7
0°-30°	2294.1	11.1
0°-40°	4030.6	19.5
0°-60°	7827.9	37.8
0°-90°	10412.4	50.3
90°-120°	4907.2	23.7
90°-150°	8937.3	43.2
90°-180°	10269.0	49.7
0°-180°	20681.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1345	1345	1345	1345	1345	
5°	1310	1406	1583	1791	1856	121
15°	982	1812	3054	3702	3819	273
25°	627	2054	3638	3798	3802	289
35°	424	1964	3426	3620	3763	265
45°	290	1566	3028	3469	3625	224
55°	208	995	2569	2984	3067	189
65°	164	528	1908	2145	2176	163
75°	121	324	1047	1150	1155	127
85°	43	100	260	286	290	46
90°	11	30	81	40	40	12
95°	102	400	1330	686	467	113
105°	366	554	2244	3407	3179	388
115°	650	789	1798	3586	4093	642
125°	904	1013	1635	2763	3260	802
135°	1077	1185	1584	2230	2529	833
145°	1249	1329	1564	1903	2052	783
155°	1412	1451	1564	1717	1767	649
165°	1524	1544	1564	1626	1646	430
175°	1584	1584	1574	1595	1595	150
180°	1584	1584	1584	1584	1584	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1345.2	1345.2	1345.2	1345.2	1345.2	1345.2	1345.2	1345.2	1345.2	1345.2	1345.2
2.5°	1345.2	1345.2	1353.8	1358.2	1366.8	1371.1	1379.8	1388.4	1414.4	1418.8	1427.4
5°	1310.5	1327.8	1384.1	1405.7	1466.3	1548.5	1583.1	1639.3	1756.1	1790.7	1812.3
7.5°	1258.7	1297.6	1436.0	1470.6	1622.0	1838.3	1929.1	2050.3	2236.2	2327.1	2400.6
10°	1176.5	1258.7	1505.2	1587.4	1833.9	2162.6	2331.3	2500.0	2781.2	2906.6	2954.2
12.5°	1085.7	1219.7	1578.8	1691.2	2045.9	2526.0	2729.3	2915.3	3235.4	3404.1	3430.0
15°	981.8	1163.5	1647.9	1812.3	2270.8	2828.8	3053.7	3282.9	3581.4	3702.5	3732.8
17.5°	891.0	1120.3	1712.9	1885.8	2443.8	3101.3	3330.6	3520.8	3763.0	3845.2	3866.9
20°	778.6	1051.0	1756.1	1981.0	2625.5	3300.2	3520.8	3667.9	3832.3	3884.2	3892.8
22.5°	696.3	977.5	1782.0	2015.6	2746.6	3421.4	3607.4	3724.1	3836.6	3853.9	3858.2
25°	627.2	895.4	1777.7	2054.5	2850.4	3494.9	3637.6	3724.1	3789.0	3797.6	3797.6
27.5°	562.3	804.5	1760.4	2063.2	2928.2	3512.2	3624.7	3685.2	3715.5	3732.8	3732.8
30°	506.1	718.0	1717.1	2045.9	2962.8	3494.9	3585.7	3616.0	3646.3	3672.2	3685.2
32.5°	462.8	635.8	1652.3	2011.3	2967.2	3451.6	3516.5	3533.8	3577.0	3637.6	3659.3
35°	423.9	553.6	1578.8	1963.7	2941.3	3382.4	3425.6	3443.0	3529.5	3620.3	3650.6
37.5°	384.9	493.1	1483.6	1881.6	2902.3	3300.2	3330.6	3360.8	3494.9	3603.0	3637.6
40°	346.0	441.2	1371.1	1790.7	2841.8	3200.8	3226.7	3274.3	3451.6	3577.0	3611.6
42.5°	315.8	398.0	1250.1	1695.6	2763.9	3088.3	3127.3	3196.4	3399.7	3533.8	3572.8
45°	289.8	354.7	1120.3	1565.8	2664.4	2971.5	3027.8	3122.9	3339.2	3468.9	3503.5
47.5°	263.9	324.4	986.2	1431.7	2556.3	2854.7	2928.2	3036.4	3257.0	3382.4	3412.7
50°	242.2	294.1	852.1	1289.0	2439.5	2729.3	2815.8	2928.2	3153.2	3270.0	3308.9
52.5°	224.9	268.2	726.7	1146.2	2305.4	2599.5	2699.1	2815.8	3027.8	3140.2	3166.1
55°	207.6	246.6	618.6	994.8	2167.0	2461.1	2569.3	2681.8	2889.3	2984.5	3001.8
57.5°	198.9	229.3	527.7	852.1	2019.9	2305.4	2426.5	2530.4	2725.0	2798.5	2815.8
60°	186.0	216.2	458.5	731.0	1859.9	2158.4	2262.1	2366.0	2530.4	2590.8	2603.9
62.5°	173.0	207.6	406.6	614.2	1695.6	1985.3	2089.1	2184.3	2322.7	2366.0	2383.3
65°	164.4	198.9	367.6	527.7	1526.9	1803.7	1907.5	1989.7	2102.1	2145.3	2154.0
67.5°	155.7	190.3	337.4	454.2	1358.2	1622.0	1699.8	1777.7	1864.3	1907.5	1911.8
70°	142.7	181.6	311.4	402.2	1185.1	1414.4	1479.2	1561.5	1630.6	1652.3	1665.2
72.5°	134.1	168.7	294.1	363.3	1007.8	1215.5	1276.0	1323.6	1384.1	1405.7	1405.7
75°	121.1	151.4	276.8	324.4	826.1	994.8	1046.8	1094.3	1141.9	1150.5	1137.6
77.5°	108.1	134.1	237.9	272.5	644.5	787.2	830.4	856.4	895.4	904.0	908.3
80°	90.8	116.8	186.0	212.0	467.2	579.6	609.9	631.5	666.1	666.1	674.8
82.5°	69.2	90.8	134.1	151.4	315.8	398.0	423.9	436.8	458.5	458.5	458.5
85°	43.3	56.2	86.5	99.5	190.3	242.2	259.5	263.9	281.2	285.5	285.5
87.5°	21.6	30.2	56.2	60.6	99.5	125.4	125.4	134.1	134.1	129.8	125.4
90°	10.6	19.2	27.6	29.7	46.8	69.4	80.8	71.8	53.8	40.4	40.4
92.5°	42.5	114.8	187.1	205.2	288.5	399.5	455.1	398.8	286.4	202.0	194.0
95°	102.1	234.4	366.7	399.8	709.8	1123.3	1330.0	1186.8	900.5	685.7	661.3
97.5°	176.4	293.2	409.9	439.1	956.1	1645.5	1990.2	1899.7	1718.7	1583.0	1536.8
100°	233.9	339.7	445.5	472.0	1045.7	1810.8	2193.3	2199.9	2213.2	2223.0	2167.9
102.5°	282.8	381.5	480.3	505.0	1086.9	1862.8	2250.7	2366.0	2596.6	2769.5	2722.2
105°	365.8	449.3	533.0	553.9	1117.4	1868.7	2244.3	2502.8	3019.7	3407.4	3382.0
107.5°	450.8	528.8	606.7	626.2	1123.0	1785.5	2116.7	2477.3	3198.3	3739.1	3745.2
110°	508.2	578.6	649.0	666.6	1114.5	1711.8	2010.4	2413.5	3219.5	3824.1	3850.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	564.5	631.7	698.7	715.5	1114.9	1647.4	1913.7	2326.2	3151.2	3769.9	3810.6
115°	649.6	711.5	773.4	788.9	1125.2	1573.6	1797.8	2195.2	2989.9	3586.0	3642.3
117.5°	733.6	789.8	846.0	860.1	1146.1	1527.4	1718.1	2076.7	2794.0	3331.9	3394.4
120°	782.5	835.4	888.4	901.6	1163.2	1511.9	1686.2	2013.9	2669.2	3160.7	3221.5
122.5°	830.4	883.8	937.1	950.5	1187.6	1503.7	1661.7	1956.8	2547.0	2989.6	3049.5
125°	903.7	952.4	1001.0	1013.2	1220.5	1497.0	1635.2	1885.8	2387.1	2763.1	2818.2
127.5°	963.2	1012.3	1061.5	1073.8	1253.5	1493.0	1612.8	1828.1	2258.5	2581.3	2627.8
130°	995.1	1048.0	1101.0	1114.2	1277.6	1495.4	1604.3	1795.9	2179.2	2466.5	2509.6
132.5°	1028.1	1081.0	1133.9	1147.1	1297.0	1496.9	1596.8	1768.3	2111.4	2368.7	2407.2
135°	1077.0	1125.2	1173.4	1185.4	1318.3	1495.5	1584.1	1727.8	2015.0	2230.5	2263.7
137.5°	1126.9	1174.7	1222.4	1234.3	1350.2	1504.7	1582.0	1703.4	1946.3	2128.5	2155.6
140°	1168.4	1212.4	1256.3	1267.3	1369.7	1506.3	1574.5	1679.4	1889.2	2046.6	2072.0
142.5°	1200.3	1240.9	1281.6	1291.7	1385.9	1511.6	1574.5	1666.7	1851.0	1989.2	2011.0
145°	1249.2	1284.6	1320.1	1328.9	1407.2	1511.7	1563.9	1639.2	1790.0	1903.0	1919.6
147.5°	1298.1	1332.6	1367.1	1375.7	1438.4	1522.1	1563.9	1623.2	1741.8	1830.8	1844.5
150°	1330.0	1361.2	1392.3	1400.2	1454.8	1527.6	1563.9	1614.0	1714.1	1789.3	1800.4
152.5°	1362.9	1386.5	1410.2	1416.1	1465.4	1531.0	1563.9	1606.7	1692.2	1756.3	1764.7
155°	1411.8	1429.3	1446.9	1451.2	1488.8	1538.9	1563.9	1597.9	1665.9	1717.0	1722.5
157.5°	1448.0	1465.0	1482.1	1486.3	1512.2	1546.7	1563.9	1590.3	1643.3	1683.0	1686.9
160°	1472.4	1485.7	1498.9	1502.2	1522.8	1550.2	1563.9	1586.6	1631.9	1665.9	1668.1
162.5°	1496.9	1506.8	1516.7	1519.2	1534.1	1554.0	1563.9	1583.0	1621.3	1650.0	1652.1
165°	1523.5	1532.4	1541.4	1543.7	1550.4	1559.4	1563.9	1577.6	1605.0	1625.5	1627.7
167.5°	1547.9	1552.2	1556.4	1557.5	1563.2	1570.7	1574.5	1583.5	1601.5	1615.0	1615.9
170°	1563.9	1568.2	1572.5	1573.5	1573.8	1574.2	1574.5	1583.5	1601.5	1615.0	1615.0
172.5°	1572.4	1573.3	1574.2	1574.5	1574.5	1574.5	1574.5	1581.6	1595.8	1606.4	1605.6
175°	1584.1	1584.1	1584.1	1584.1	1580.9	1576.6	1574.5	1579.0	1588.0	1594.7	1594.7
177.5°	1584.1	1584.1	1584.1	1584.1	1581.7	1578.3	1576.6	1580.2	1587.3	1592.6	1591.6
180°	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1	1584.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1345.2	1345.2
2.5°	1436.0	1427.4
5°	1847.0	1855.6
7.5°	2487.1	2482.7
10°	3092.6	3131.5
12.5°	3533.8	3542.4
15°	3802.0	3819.3
17.5°	3905.8	3910.1
20°	3910.1	3901.5
22.5°	3862.5	3853.9
25°	3806.3	3802.0
27.5°	3754.4	3758.8
30°	3732.8	3745.7
32.5°	3732.8	3754.4
35°	3741.4	3763.0
37.5°	3737.1	3763.0
40°	3719.8	3750.1
42.5°	3672.2	3693.8
45°	3598.7	3624.7
47.5°	3503.5	3520.8
50°	3382.4	3399.7
52.5°	3231.0	3235.4
55°	3049.4	3066.7
57.5°	2854.7	2859.1
60°	2638.5	2651.4
62.5°	2409.2	2409.2
65°	2167.0	2175.7
67.5°	1916.1	1937.8
70°	1661.0	1665.2
72.5°	1410.1	1410.1
75°	1150.5	1154.9
77.5°	904.0	904.0
80°	670.4	674.8
82.5°	462.8	471.5
85°	289.8	289.8
87.5°	134.1	121.1
90°	40.4	40.4
92.5°	161.8	129.7
95°	564.0	466.7
97.5°	1351.5	1166.3
100°	1947.2	1726.6
102.5°	2533.3	2344.3
105°	3280.4	3178.8
107.5°	3769.8	3794.4
110°	3956.4	4062.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3973.1	4135.7
115°	3867.7	4093.1
117.5°	3644.3	3894.3
120°	3464.3	3707.2
122.5°	3289.0	3528.6
125°	3038.9	3259.6
127.5°	2814.1	3000.2
130°	2681.5	2853.5
132.5°	2561.3	2715.3
135°	2396.4	2529.2
137.5°	2264.3	2373.0
140°	2173.6	2275.2
142.5°	2098.4	2185.8
145°	1985.8	2051.9
147.5°	1899.3	1954.1
150°	1844.8	1889.2
152.5°	1798.2	1831.8
155°	1744.7	1767.0
157.5°	1702.5	1718.1
160°	1677.2	1686.2
162.5°	1660.6	1669.2
165°	1636.8	1645.7
167.5°	1619.7	1623.4
170°	1615.0	1615.0
172.5°	1602.3	1598.9
175°	1594.7	1594.7
177.5°	1587.9	1584.1
180°	1584.1	1584.1



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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	6.00	6.90	6.94	7.87	9.13	19.19	20.09	20.13	21.06	22.32
	3H	6.70	7.52	7.66	8.49	9.78	21.04	21.85	21.99	22.82	24.11
	4H	7.00	7.77	7.98	8.75	10.05	21.69	22.46	22.66	23.44	24.73
	6H	7.26	7.97	8.24	8.95	10.26	22.12	22.83	23.11	23.82	25.13
	8H	7.33	8.00	8.31	9.01	10.31	22.25	22.92	23.24	23.93	25.23
	12H	7.34	7.99	8.34	8.99	10.32	22.32	22.96	23.31	23.96	25.29
4H	2H	13.22	13.99	14.20	14.97	16.27	19.47	20.24	20.44	21.22	22.51
	3H	14.79	15.44	15.78	16.45	17.76	21.52	22.17	22.51	23.18	24.48
	4H	14.89	15.48	15.89	16.48	17.82	22.29	22.88	23.29	23.89	25.22
	6H	14.90	15.41	15.91	16.44	17.77	22.84	23.35	23.85	24.38	25.70
	8H	14.88	15.36	15.89	16.38	17.72	23.01	23.48	24.01	24.50	25.85
	12H	14.84	15.27	15.87	16.31	17.66	23.10	23.53	24.13	24.57	25.92
8H	4H	16.34	16.82	17.35	17.84	19.18	22.36	22.83	23.37	23.85	25.20
	6H	16.59	16.98	17.62	18.04	19.39	22.99	23.39	24.03	24.45	25.79
	8H	16.61	16.95	17.65	18.00	19.36	23.22	23.56	24.26	24.61	25.97
	12H	16.58	16.88	17.62	17.93	19.33	23.37	23.67	24.41	24.71	26.12
12H	4H	16.49	16.92	17.52	17.96	19.31	22.31	22.74	23.34	23.78	25.13
	6H	16.85	17.20	17.89	18.24	19.60	22.98	23.33	24.02	24.37	25.73
	8H	16.92	17.23	17.97	18.27	19.67	23.21	23.52	24.26	24.56	25.96