

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: P937781

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937781
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-B2750-1D-UNV-W2A-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

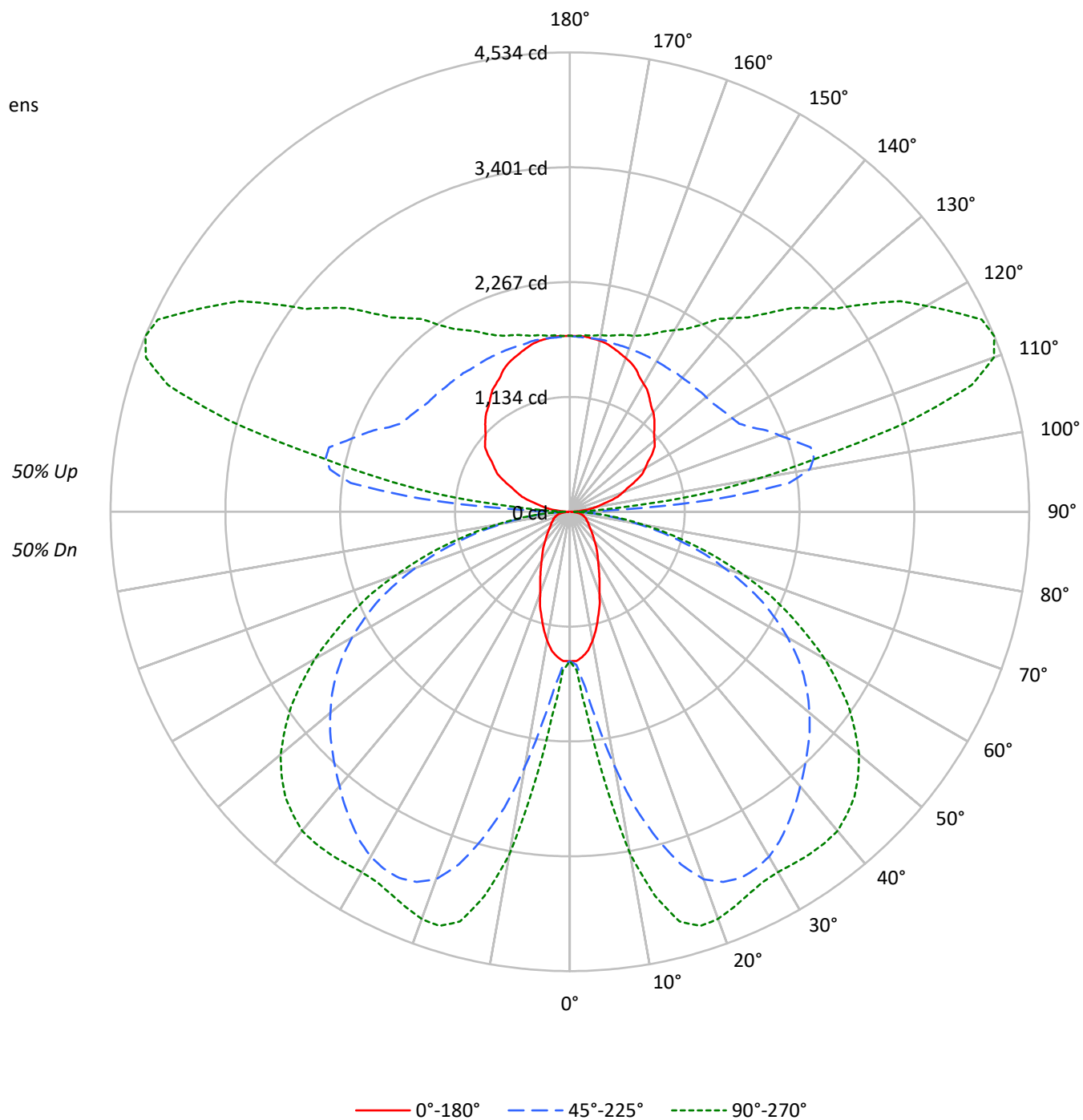
Lumens per Lamp: N/A
Luminaire Lumens: 22672.0 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

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

TEST NUMBER: P937781

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4561	4561	4561
5°	4458	5273	6131
10°	4045	7688	10164
15°	3439	10047	12273
20°	2801	11646	12508
25°	2337	12190	12254
30°	1972	12270	12231
35°	1745	12069	12547
40°	1521	11808	12874
45°	1378	11618	12924
50°	1265	11447	12710
55°	1213	11196	12147
60°	1243	10709	11257
65°	1296	9966	10035
70°	1383	8698	8477
75°	1538	7098	6616
80°	1694	4929	4458
85°	1536	2620	2282

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12924 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.8	0.8
10°-20°	845.4	3.7
20°-30°	1478.8	6.5
30°-40°	1903.6	8.4
40°-50°	2126.3	9.4
50°-60°	2036.5	9.0
60°-70°	1613.9	7.1
70°-80°	949.0	4.2
80°-90°	270.3	1.2
90°-100°	846.5	3.7
100°-110°	2225.5	9.8
110°-120°	2307.6	10.2
120°-130°	1851.0	8.2
130°-140°	1452.3	6.4
140°-150°	1114.7	4.9
150°-160°	802.8	3.5
160°-170°	491.2	2.2
170°-180°	165.9	0.7
0°-30°	2514.9	11.1
0°-40°	4418.6	19.5
0°-60°	8581.3	37.8
0°-90°	11414.5	50.3
90°-120°	5379.5	23.7
90°-150°	9797.5	43.2
90°-180°	11257.0	49.7
0°-180°	22672.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1437	1541	1736	1963	2034	133
15°	1076	1987	3348	4059	4187	300
25°	688	2252	3988	4163	4168	317
35°	465	2153	3755	3969	4125	290
45°	318	1716	3319	3803	3974	246
55°	228	1090	2817	3272	3362	207
65°	180	578	2091	2352	2385	179
75°	133	356	1148	1261	1266	139
85°	47	109	284	313	318	50
90°	12	33	88	44	44	13
95°	112	438	1458	752	512	124
105°	401	607	2460	3735	3485	425
115°	712	865	1971	3931	4487	703
125°	991	1111	1792	3029	3573	880
135°	1181	1300	1737	2445	2773	913
145°	1369	1457	1714	2086	2249	858
155°	1548	1591	1714	1882	1937	711
165°	1670	1692	1714	1782	1804	471
175°	1737	1737	1726	1748	1748	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°	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7
2.5°	1474.7	1474.7	1484.1	1488.9	1498.3	1503.1	1512.6	1522.0	1550.5	1555.3	1564.7
5°	1436.7	1455.6	1517.3	1541.0	1607.4	1697.5	1735.5	1797.1	1925.1	1963.1	1986.7
7.5°	1379.8	1422.5	1574.3	1612.2	1778.1	2015.2	2114.8	2247.6	2451.5	2551.0	2631.6
10°	1289.8	1379.8	1650.1	1740.1	2010.4	2370.8	2555.7	2740.6	3048.9	3186.3	3238.6
12.5°	1190.2	1337.1	1730.7	1854.0	2242.8	2769.1	2992.0	3195.9	3546.8	3731.7	3760.1
15°	1076.3	1275.5	1806.5	1986.7	2489.4	3101.1	3347.5	3598.9	3926.1	4058.9	4092.0
17.5°	976.8	1228.1	1877.7	2067.3	2679.0	3399.8	3651.1	3859.7	4125.2	4215.3	4239.1
20°	853.5	1152.2	1925.1	2171.6	2878.2	3617.8	3859.7	4020.9	4201.1	4258.0	4267.4
22.5°	763.4	1071.6	1953.6	2209.6	3010.9	3750.7	3954.6	4082.5	4205.8	4224.8	4229.5
25°	687.5	981.5	1948.8	2252.2	3124.7	3831.3	3987.7	4082.5	4153.7	4163.1	4163.1
27.5°	616.4	882.0	1929.8	2261.8	3210.1	3850.2	3973.5	4039.8	4073.1	4092.0	4092.0
30°	554.8	787.1	1882.4	2242.8	3248.0	3831.3	3930.8	3964.0	3997.2	4025.6	4039.8
32.5°	507.3	697.0	1811.3	2204.9	3252.7	3783.8	3855.0	3874.0	3921.3	3987.7	4011.4
35°	464.7	606.9	1730.7	2152.7	3224.4	3708.0	3755.3	3774.4	3869.2	3968.8	4001.9
37.5°	422.0	540.5	1626.4	2062.6	3181.7	3617.8	3651.1	3684.3	3831.3	3949.8	3987.7
40°	379.3	483.6	1503.1	1963.1	3115.3	3508.9	3537.2	3589.5	3783.8	3921.3	3959.2
42.5°	346.1	436.3	1370.4	1858.8	3029.9	3385.6	3428.2	3504.1	3726.9	3874.0	3916.6
45°	317.7	388.8	1228.1	1716.5	2920.8	3257.5	3319.2	3423.5	3660.5	3802.8	3840.7
47.5°	289.3	355.7	1081.1	1569.5	2802.3	3129.5	3210.1	3328.6	3570.5	3708.0	3741.1
50°	265.5	322.4	934.1	1413.0	2674.3	2992.0	3086.8	3210.1	3456.6	3584.7	3627.4
52.5°	246.6	294.0	796.6	1256.5	2527.3	2849.7	2958.8	3086.8	3319.2	3442.4	3470.8
55°	227.6	270.3	678.1	1090.5	2375.5	2698.0	2816.6	2939.9	3167.4	3271.7	3290.7
57.5°	218.1	251.3	578.5	934.1	2214.3	2527.3	2660.0	2773.9	2987.2	3067.8	3086.8
60°	203.9	237.0	502.6	801.4	2038.9	2366.1	2479.9	2593.7	2773.9	2840.2	2854.5
62.5°	189.7	227.6	445.7	673.3	1858.8	2176.4	2290.2	2394.5	2546.3	2593.7	2612.7
65°	180.2	218.1	403.0	578.5	1673.8	1977.3	2091.0	2181.2	2304.5	2351.8	2361.3
67.5°	170.7	208.7	369.9	497.9	1488.9	1778.1	1863.4	1948.8	2043.7	2091.0	2095.8
70°	156.4	199.1	341.4	440.9	1299.2	1550.5	1621.6	1711.7	1787.6	1811.3	1825.5
72.5°	147.0	184.9	322.4	398.3	1104.8	1332.4	1398.8	1451.0	1517.3	1541.0	1541.0
75°	132.7	166.0	303.5	355.7	905.6	1090.5	1147.5	1199.6	1251.7	1261.3	1247.1
77.5°	118.5	147.0	260.8	298.7	706.5	863.0	910.4	938.9	981.5	991.0	995.7
80°	99.6	128.1	203.9	232.4	512.1	635.4	668.6	692.3	730.2	730.2	739.7
82.5°	75.8	99.6	147.0	166.0	346.1	436.3	464.7	478.9	502.6	502.6	502.6
85°	47.4	61.6	94.8	109.1	208.7	265.5	284.5	289.3	308.2	313.0	313.0
87.5°	23.7	33.2	61.6	66.4	109.1	137.5	137.5	147.0	147.0	142.2	137.5
90°	11.7	21.0	30.3	32.6	51.3	76.1	88.5	78.7	59.0	44.3	44.3
92.5°	46.6	125.8	205.1	224.9	316.3	438.0	498.8	437.2	313.9	221.5	212.7
95°	111.9	256.9	402.0	438.2	778.1	1231.4	1458.0	1301.1	987.1	751.7	725.0
97.5°	193.4	321.4	449.3	481.4	1048.1	1803.8	2181.7	2082.5	1884.2	1735.4	1684.7
100°	256.4	372.4	488.4	517.4	1146.4	1985.0	2404.4	2411.7	2426.2	2437.0	2376.6
102.5°	310.0	418.2	526.5	553.6	1191.5	2042.1	2467.3	2593.7	2846.5	3036.1	2984.2
105°	401.0	492.6	584.3	607.2	1224.9	2048.5	2460.3	2743.7	3310.4	3735.3	3707.5
107.5°	494.2	579.6	665.1	686.5	1231.1	1957.3	2320.4	2715.7	3506.1	4099.0	4105.7
110°	557.1	634.3	711.4	730.8	1221.8	1876.5	2203.9	2645.7	3529.4	4192.2	4221.2

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	618.9	692.5	766.0	784.4	1222.2	1806.0	2097.9	2550.1	3454.5	4132.8	4177.3
115°	712.1	780.0	847.8	864.8	1233.4	1725.0	1970.8	2406.5	3277.7	3931.1	3992.8
117.5°	804.2	865.8	927.5	942.9	1256.4	1674.4	1883.4	2276.5	3062.9	3652.6	3721.1
120°	857.8	915.8	973.9	988.4	1275.1	1657.4	1848.5	2207.7	2926.1	3465.0	3531.5
122.5°	910.3	968.8	1027.3	1042.0	1301.9	1648.4	1821.7	2145.1	2792.1	3277.3	3343.0
125°	990.7	1044.0	1097.4	1110.7	1338.0	1641.0	1792.5	2067.3	2616.9	3029.1	3089.5
127.5°	1055.9	1109.8	1163.7	1177.1	1374.1	1636.7	1768.1	2004.0	2475.8	2829.7	2880.7
130°	1090.9	1148.9	1206.9	1221.4	1400.5	1639.4	1758.7	1968.8	2388.9	2703.9	2751.1
132.5°	1127.1	1185.1	1243.1	1257.5	1421.8	1640.9	1750.5	1938.5	2314.6	2596.7	2638.9
135°	1180.7	1233.4	1286.3	1299.5	1445.2	1639.5	1736.6	1894.1	2208.9	2445.1	2481.5
137.5°	1235.4	1287.7	1340.0	1353.1	1480.1	1649.5	1734.3	1867.3	2133.6	2333.3	2363.1
140°	1280.9	1329.1	1377.2	1389.2	1501.5	1651.2	1726.0	1841.0	2071.1	2243.6	2271.4
142.5°	1315.8	1360.4	1404.9	1416.0	1519.3	1657.1	1726.0	1827.1	2029.1	2180.6	2204.5
145°	1369.4	1408.3	1447.1	1456.9	1542.7	1657.2	1714.5	1797.0	1962.2	2086.2	2104.3
147.5°	1423.0	1460.9	1498.7	1508.1	1576.9	1668.6	1714.5	1779.5	1909.5	2007.0	2022.0
150°	1458.0	1492.2	1526.3	1534.9	1594.8	1674.6	1714.5	1769.4	1879.1	1961.5	1973.6
152.5°	1494.1	1520.0	1546.0	1552.4	1606.4	1678.4	1714.5	1761.3	1855.0	1925.3	1934.5
155°	1547.7	1566.9	1586.1	1590.9	1632.1	1687.0	1714.5	1751.7	1826.3	1882.2	1888.3
157.5°	1587.3	1606.0	1624.7	1629.4	1657.8	1695.6	1714.5	1743.4	1801.4	1844.9	1849.2
160°	1614.1	1628.7	1643.2	1646.8	1669.3	1699.4	1714.5	1739.3	1789.0	1826.3	1828.7
162.5°	1640.9	1651.8	1662.7	1665.4	1681.8	1703.5	1714.5	1735.4	1777.3	1808.8	1811.1
165°	1670.1	1679.9	1689.8	1692.2	1699.6	1709.5	1714.5	1729.5	1759.5	1782.0	1784.4
167.5°	1696.9	1701.6	1706.2	1707.4	1713.6	1721.9	1726.0	1735.9	1755.6	1770.4	1771.4
170°	1714.5	1719.1	1723.8	1724.9	1725.3	1725.8	1726.0	1735.9	1755.6	1770.4	1770.4
172.5°	1723.7	1724.7	1725.8	1726.0	1726.0	1726.0	1726.0	1733.8	1749.4	1761.1	1760.1
175°	1736.6	1736.6	1736.6	1736.6	1733.0	1728.4	1726.0	1731.0	1740.8	1748.2	1748.2
177.5°	1736.6	1736.6	1736.6	1736.6	1733.9	1730.2	1728.4	1732.3	1740.0	1745.8	1744.8
180°	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1474.7	1474.7
2.5°	1574.3	1564.7
5°	2024.7	2034.2
7.5°	2726.4	2721.7
10°	3390.2	3432.9
12.5°	3874.0	3883.4
15°	4167.9	4186.8
17.5°	4281.7	4286.4
20°	4286.4	4277.0
22.5°	4234.3	4224.8
25°	4172.6	4167.9
27.5°	4115.8	4120.5
30°	4092.0	4106.2
32.5°	4092.0	4115.8
35°	4101.5	4125.2
37.5°	4096.8	4125.2
40°	4077.8	4111.0
42.5°	4025.6	4049.4
45°	3945.0	3973.5
47.5°	3840.7	3859.7
50°	3708.0	3726.9
52.5°	3542.0	3546.8
55°	3342.9	3361.8
57.5°	3129.5	3134.2
60°	2892.4	2906.6
62.5°	2641.1	2641.1
65°	2375.5	2385.1
67.5°	2100.6	2124.3
70°	1820.8	1825.5
72.5°	1545.8	1545.8
75°	1261.3	1266.0
77.5°	991.0	991.0
80°	735.0	739.7
82.5°	507.3	516.9
85°	317.7	317.7
87.5°	147.0	132.7
90°	44.3	44.3
92.5°	177.4	142.2
95°	618.3	511.6
97.5°	1481.6	1278.6
100°	2134.7	1892.8
102.5°	2777.1	2569.9
105°	3596.1	3484.8
107.5°	4132.7	4159.6
110°	4337.2	4453.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4355.5	4533.7
115°	4240.0	4487.0
117.5°	3995.1	4269.1
120°	3797.7	4064.0
122.5°	3605.5	3868.2
125°	3331.4	3573.3
127.5°	3084.9	3289.0
130°	2939.6	3128.2
132.5°	2807.8	2976.7
135°	2627.1	2772.7
137.5°	2482.2	2601.4
140°	2382.8	2494.2
142.5°	2300.3	2396.2
145°	2176.9	2249.4
147.5°	2082.1	2142.1
150°	2022.4	2071.1
152.5°	1971.3	2008.1
155°	1912.6	1937.0
157.5°	1866.3	1883.4
160°	1838.6	1848.5
162.5°	1820.5	1829.8
165°	1794.3	1804.1
167.5°	1775.5	1779.6
170°	1770.4	1770.4
172.5°	1756.5	1752.8
175°	1748.2	1748.2
177.5°	1740.7	1736.6
180°	1736.6	1736.6

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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	6.32	7.22	7.26	8.19	9.45	19.51	20.41	20.45	21.38	22.64
	3H	7.02	7.84	7.98	8.81	10.10	21.35	22.17	22.31	23.14	24.43
	4H	7.32	8.09	8.29	9.07	10.37	22.01	22.77	22.98	23.76	25.05
	6H	7.58	8.29	8.56	9.27	10.58	22.44	23.15	23.43	24.14	25.45
	8H	7.65	8.32	8.63	9.33	10.63	22.57	23.24	23.56	24.25	25.55
	12H	7.66	8.31	8.66	9.31	10.64	22.64	23.28	23.63	24.28	25.61
4H	2H	13.54	14.31	14.52	15.29	16.59	19.79	20.55	20.76	21.54	22.83
	3H	15.11	15.76	16.10	16.77	18.08	21.84	22.48	22.83	23.49	24.80
	4H	15.21	15.80	16.21	16.80	18.14	22.61	23.20	23.61	24.21	25.54
	6H	15.22	15.73	16.23	16.76	18.09	23.16	23.67	24.17	24.70	26.02
	8H	15.20	15.68	16.21	16.70	18.04	23.32	23.80	24.33	24.82	26.17
	12H	15.16	15.59	16.19	16.63	17.98	23.42	23.85	24.45	24.89	26.24
8H	4H	16.66	17.14	17.67	18.16	19.50	22.68	23.15	23.69	24.17	25.52
	6H	16.91	17.30	17.94	18.36	19.70	23.31	23.71	24.35	24.77	26.11
	8H	16.93	17.27	17.97	18.32	19.68	23.54	23.88	24.58	24.93	26.29
	12H	16.90	17.20	17.94	18.24	19.65	23.69	23.99	24.73	25.03	26.44
12H	4H	16.81	17.24	17.84	18.28	19.63	22.63	23.06	23.66	24.10	25.45
	6H	17.17	17.52	18.21	18.56	19.92	23.30	23.64	24.34	24.69	26.05
	8H	17.24	17.55	18.29	18.59	19.99	23.53	23.84	24.58	24.88	26.28