

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: P937673

Luminaire Tested: SQ4-FB-100U-100D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937673
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

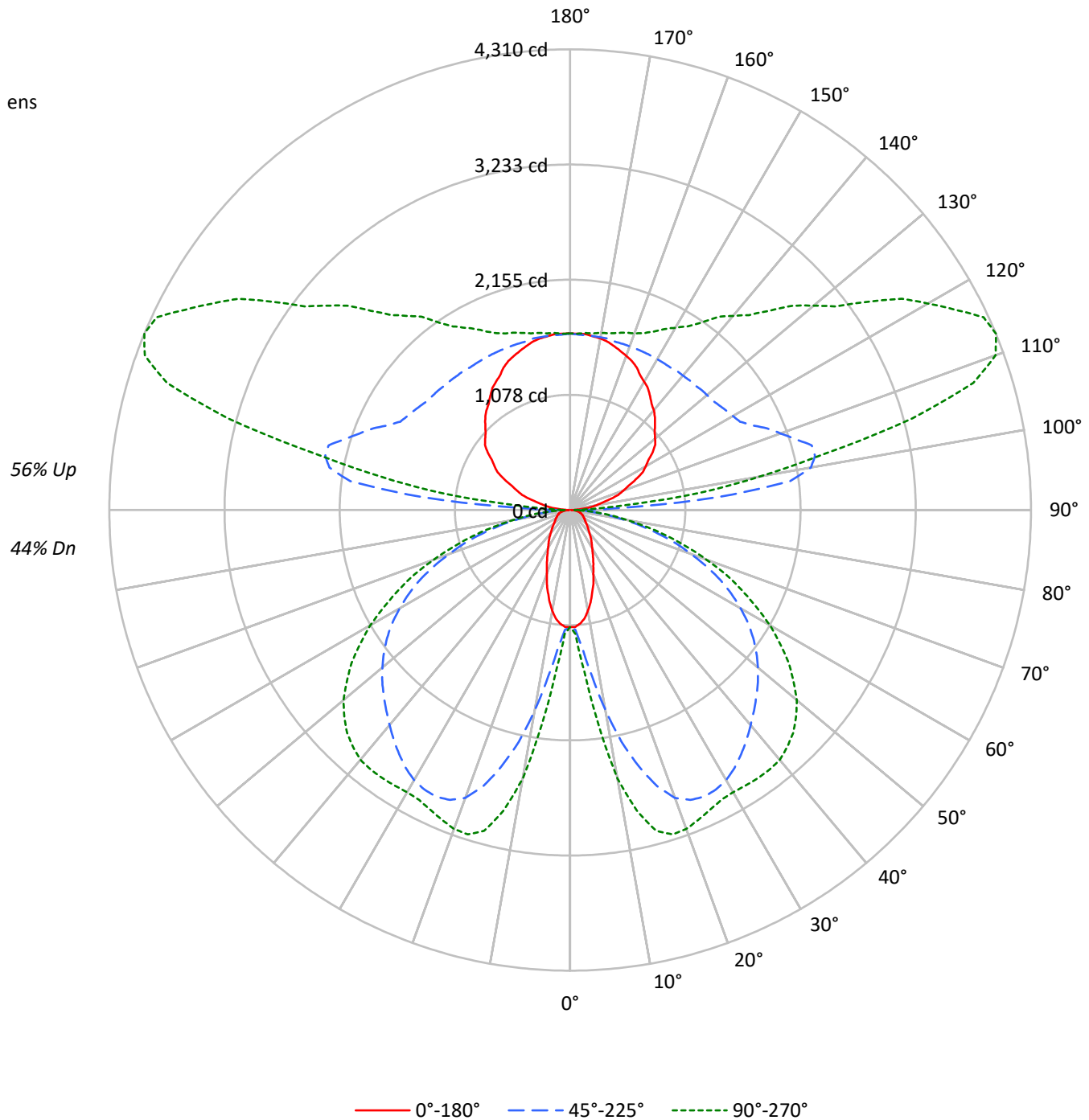
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19177.3 lumens
Efficiency: N/A
Efficacy: 110.2 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): 174
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	50	30	10
RCR																				
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44		44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36		36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30		30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24		24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20		20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17		17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15		15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13		13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11		11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10		10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9		9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3386	3386	3386
5°	3309	3914	4551
10°	3003	5707	7545
15°	2553	7458	9110
20°	2079	8645	9285
25°	1735	9049	9096
30°	1464	9108	9079
35°	1295	8959	9314
40°	1129	8765	9556
45°	1023	8624	9594
50°	939	8497	9435
55°	901	8310	9017
60°	923	7949	8356
65°	961	7398	7449
70°	1027	6457	6293
75°	1143	5269	4911
80°	1257	3659	3309
85°	1141	1945	1694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9594 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.6	0.7
10°-20°	627.5	3.3
20°-30°	1097.7	5.7
30°-40°	1413.0	7.4
40°-50°	1578.3	8.2
50°-60°	1511.7	7.9
60°-70°	1198.0	6.2
70°-80°	704.5	3.7
80°-90°	202.0	1.1
90°-100°	804.8	4.2
100°-110°	2115.8	11.0
110°-120°	2193.9	11.4
120°-130°	1759.8	9.2
130°-140°	1380.8	7.2
140°-150°	1059.8	5.5
150°-160°	763.2	4.0
160°-170°	467.0	2.4
170°-180°	157.8	0.8
0°-30°	1866.8	9.7
0°-40°	3279.9	17.1
0°-60°	6369.8	33.2
0°-90°	8474.3	44.2
90°-120°	5114.6	26.7
90°-150°	9315.0	48.6
90°-180°	10703.0	55.8
0°-180°	19177.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1066	1144	1288	1457	1510	98
15°	799	1475	2485	3013	3108	222
25°	510	1672	2960	3090	3094	235
35°	345	1598	2788	2946	3062	215
45°	236	1274	2464	2823	2950	182
55°	169	810	2091	2429	2496	154
65°	134	429	1552	1746	1770	133
75°	99	264	852	936	940	103
85°	35	81	211	232	236	37
90°	11	31	84	42	42	12
95°	106	417	1386	715	486	118
105°	381	577	2339	3551	3313	404
115°	677	822	1874	3738	4266	669
125°	942	1056	1704	2880	3397	836
135°	1122	1236	1651	2325	2636	868
145°	1302	1385	1630	1983	2139	816
155°	1472	1512	1630	1790	1842	676
165°	1588	1609	1630	1694	1715	448
175°	1651	1651	1641	1662	1662	157
180°	1651	1651	1651	1651	1651	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6
2.5°	1094.6	1094.6	1101.7	1105.2	1112.2	1115.8	1122.8	1129.8	1150.9	1154.5	1161.5
5°	1066.5	1080.5	1126.3	1143.9	1193.2	1260.1	1288.2	1334.0	1429.0	1457.1	1474.7
7.5°	1024.2	1055.9	1168.5	1196.7	1319.8	1495.8	1569.8	1668.3	1819.7	1893.6	1953.4
10°	957.4	1024.2	1224.8	1291.7	1492.4	1759.8	1897.1	2034.4	2263.2	2365.2	2403.9
12.5°	883.5	992.5	1284.7	1376.2	1664.8	2055.5	2220.9	2372.3	2632.7	2770.0	2791.1
15°	798.9	946.8	1341.0	1474.7	1847.8	2301.9	2484.9	2671.5	2914.3	3012.8	3037.5
17.5°	725.1	911.6	1393.8	1534.6	1988.6	2523.6	2710.2	2865.0	3062.1	3129.0	3146.6
20°	633.5	855.3	1429.0	1612.0	2136.4	2685.5	2865.0	2984.7	3118.4	3160.7	3167.7
22.5°	566.6	795.5	1450.1	1640.1	2235.0	2784.1	2935.4	3030.5	3121.9	3136.1	3139.5
25°	510.3	728.6	1446.6	1671.8	2319.5	2843.9	2960.1	3030.5	3083.2	3090.2	3090.2
27.5°	457.6	654.6	1432.5	1678.9	2382.9	2857.9	2949.5	2998.8	3023.4	3037.5	3037.5
30°	411.8	584.3	1397.3	1664.8	2411.0	2843.9	2917.8	2942.5	2967.1	2988.2	2998.8
32.5°	376.6	517.3	1344.5	1636.7	2414.5	2808.7	2861.5	2875.6	2910.8	2960.1	2977.6
35°	344.9	450.5	1284.7	1598.0	2393.3	2752.4	2787.6	2801.6	2872.1	2945.9	2970.6
37.5°	313.3	401.3	1207.2	1531.1	2361.7	2685.5	2710.2	2734.8	2843.9	2931.9	2960.1
40°	281.6	359.0	1115.8	1457.1	2312.4	2604.6	2625.6	2664.4	2808.7	2910.8	2938.9
42.5°	256.9	323.9	1017.2	1379.7	2249.0	2513.0	2544.7	2601.0	2766.5	2875.6	2907.2
45°	235.9	288.6	911.6	1274.1	2168.1	2418.0	2463.8	2541.2	2717.2	2822.8	2850.9
47.5°	214.7	264.0	802.5	1165.1	2080.1	2323.0	2382.9	2470.8	2650.3	2752.4	2777.0
50°	197.1	239.3	693.4	1048.9	1985.1	2220.9	2291.3	2382.9	2565.9	2660.9	2692.6
52.5°	183.0	218.2	591.3	932.8	1876.0	2115.3	2196.3	2291.3	2463.8	2555.3	2576.4
55°	169.0	200.6	503.3	809.5	1763.4	2002.7	2090.7	2182.2	2351.2	2428.6	2442.6
57.5°	161.9	186.6	429.4	693.4	1643.7	1876.0	1974.6	2059.0	2217.4	2277.2	2291.3
60°	151.3	176.0	373.0	594.8	1513.4	1756.3	1840.8	1925.3	2059.0	2108.3	2118.9
62.5°	140.7	169.0	330.9	499.8	1379.7	1615.5	1700.0	1777.4	1890.1	1925.3	1939.3
65°	133.7	161.9	299.2	429.4	1242.5	1467.7	1552.1	1619.1	1710.6	1745.7	1752.8
67.5°	126.7	154.9	274.6	369.6	1105.2	1319.8	1383.2	1446.6	1517.0	1552.1	1555.7
70°	116.2	147.9	253.4	327.3	964.4	1150.9	1203.8	1270.6	1326.9	1344.5	1355.1
72.5°	109.1	137.3	239.3	295.6	820.1	989.1	1038.3	1077.1	1126.3	1143.9	1143.9
75°	98.6	123.2	225.3	264.0	672.2	809.5	851.8	890.5	929.2	936.2	925.7
77.5°	88.0	109.1	193.6	221.7	524.5	640.6	675.8	696.9	728.6	735.6	739.2
80°	73.9	95.0	151.3	172.4	380.2	471.6	496.3	513.9	542.0	542.0	549.1
82.5°	56.3	73.9	109.1	123.2	256.9	323.9	344.9	355.5	373.0	373.0	373.0
85°	35.2	45.7	70.4	81.0	154.9	197.1	211.2	214.7	228.7	232.3	232.3
87.5°	17.6	24.6	45.7	49.3	81.0	102.0	102.0	109.1	109.1	105.6	102.0
90°	11.1	20.0	28.8	31.0	48.8	72.4	84.2	74.9	56.1	42.1	42.1
92.5°	44.3	119.6	195.0	213.8	300.7	416.4	474.3	415.7	298.5	210.5	202.2
95°	106.4	244.3	382.2	416.6	739.8	1170.7	1386.2	1237.0	938.5	714.7	689.3
97.5°	183.9	305.6	427.2	457.7	996.5	1715.0	2074.3	1980.0	1791.4	1649.9	1601.7
100°	243.8	354.0	464.3	492.0	1089.9	1887.3	2286.0	2292.9	2306.7	2317.0	2259.5
102.5°	294.7	397.6	500.6	526.3	1132.8	1941.5	2345.8	2466.0	2706.3	2886.5	2837.2
105°	381.2	468.3	555.5	577.3	1164.6	1947.7	2339.2	2608.6	3147.3	3551.4	3524.9
107.5°	469.8	551.1	632.3	652.7	1170.5	1860.9	2206.1	2581.9	3333.5	3897.1	3903.5
110°	529.7	603.0	676.4	694.8	1161.6	1784.1	2095.3	2515.4	3355.6	3985.7	4013.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	588.4	658.4	728.2	745.7	1162.0	1717.0	1994.5	2424.5	3284.4	3929.2	3971.6
115°	677.0	741.6	806.0	822.2	1172.7	1640.0	1873.8	2287.9	3116.3	3737.5	3796.2
117.5°	764.6	823.2	881.8	896.4	1194.5	1591.9	1790.7	2164.4	2912.0	3472.7	3537.8
120°	815.5	870.7	925.9	939.7	1212.3	1575.8	1757.4	2099.0	2782.0	3294.3	3357.6
122.5°	865.4	921.1	976.7	990.7	1237.8	1567.2	1732.0	2039.5	2654.6	3115.9	3178.3
125°	941.9	992.6	1043.3	1056.0	1272.1	1560.2	1704.2	1965.5	2488.0	2879.9	2937.3
127.5°	1003.9	1055.1	1106.4	1119.1	1306.4	1556.1	1681.0	1905.3	2353.9	2690.4	2738.9
130°	1037.2	1092.3	1147.5	1161.2	1331.6	1558.6	1672.1	1871.8	2271.2	2570.8	2615.6
132.5°	1071.5	1126.7	1181.8	1195.6	1351.8	1560.1	1664.3	1843.0	2200.6	2468.8	2509.0
135°	1122.5	1172.7	1223.0	1235.5	1374.0	1558.7	1651.1	1800.8	2100.1	2324.7	2359.3
137.5°	1174.6	1224.3	1274.0	1286.4	1407.2	1568.3	1648.8	1775.4	2028.5	2218.4	2246.7
140°	1217.8	1263.6	1309.4	1320.8	1427.5	1569.9	1641.0	1750.3	1969.1	2133.1	2159.5
142.5°	1251.0	1293.4	1335.7	1346.3	1444.5	1575.5	1641.0	1737.1	1929.2	2073.2	2095.9
145°	1302.0	1338.9	1375.9	1385.1	1466.7	1575.6	1630.0	1708.5	1865.6	1983.4	2000.7
147.5°	1353.0	1388.9	1424.9	1433.9	1499.2	1586.4	1630.0	1691.8	1815.4	1908.1	1922.4
150°	1386.2	1418.7	1451.2	1459.3	1516.3	1592.1	1630.0	1682.2	1786.6	1864.9	1876.4
152.5°	1420.5	1445.1	1469.8	1475.9	1527.3	1595.7	1630.0	1674.6	1763.7	1830.5	1839.2
155°	1471.5	1489.7	1508.0	1512.5	1551.7	1603.9	1630.0	1665.4	1736.3	1789.5	1795.3
157.5°	1509.2	1526.9	1544.7	1549.1	1576.1	1612.1	1630.0	1657.5	1712.7	1754.1	1758.2
160°	1534.6	1548.5	1562.3	1565.7	1587.1	1615.7	1630.0	1653.6	1700.9	1736.3	1738.6
162.5°	1560.1	1570.4	1580.8	1583.4	1598.9	1619.6	1630.0	1649.9	1689.8	1719.7	1721.9
165°	1587.8	1597.2	1606.6	1608.9	1615.9	1625.3	1630.0	1644.3	1672.8	1694.2	1696.5
167.5°	1613.3	1617.8	1622.2	1623.4	1629.2	1637.1	1641.0	1650.4	1669.2	1683.2	1684.2
170°	1630.0	1634.5	1638.9	1640.0	1640.3	1640.8	1641.0	1650.4	1669.2	1683.2	1683.2
172.5°	1638.8	1639.8	1640.8	1641.0	1641.0	1641.0	1641.0	1648.4	1663.2	1674.3	1673.4
175°	1651.1	1651.1	1651.1	1651.1	1647.7	1643.2	1641.0	1645.7	1655.1	1662.1	1662.1
177.5°	1651.1	1651.1	1651.1	1651.1	1648.5	1645.0	1643.2	1647.0	1654.3	1659.8	1658.9
180°	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1	1651.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1094.6	1094.6
2.5°	1168.5	1161.5
5°	1502.9	1510.0
7.5°	2023.8	2020.3
10°	2516.6	2548.2
12.5°	2875.6	2882.6
15°	3093.8	3107.9
17.5°	3178.2	3181.8
20°	3181.8	3174.8
22.5°	3143.1	3136.1
25°	3097.3	3093.8
27.5°	3055.1	3058.6
30°	3037.5	3048.1
32.5°	3037.5	3055.1
35°	3044.5	3062.1
37.5°	3041.0	3062.1
40°	3026.9	3051.5
42.5°	2988.2	3005.8
45°	2928.4	2949.5
47.5°	2850.9	2865.0
50°	2752.4	2766.5
52.5°	2629.2	2632.7
55°	2481.3	2495.5
57.5°	2323.0	2326.5
60°	2147.0	2157.6
62.5°	1960.4	1960.4
65°	1763.4	1770.4
67.5°	1559.2	1576.8
70°	1351.5	1355.1
72.5°	1147.4	1147.4
75°	936.2	939.8
77.5°	735.6	735.6
80°	545.6	549.1
82.5°	376.6	383.6
85°	235.9	235.9
87.5°	109.1	98.6
90°	42.1	42.1
92.5°	168.6	135.2
95°	587.9	486.4
97.5°	1408.6	1215.6
100°	2029.5	1799.5
102.5°	2640.3	2443.3
105°	3419.0	3313.1
107.5°	3929.1	3954.7
110°	4123.6	4234.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4141.0	4310.4
115°	4031.2	4266.0
117.5°	3798.3	4058.9
120°	3610.7	3863.9
122.5°	3427.9	3677.7
125°	3167.3	3397.3
127.5°	2933.0	3127.0
130°	2794.8	2974.1
132.5°	2669.5	2830.1
135°	2497.7	2636.1
137.5°	2359.9	2473.3
140°	2265.5	2371.3
142.5°	2187.1	2278.2
145°	2069.7	2138.6
147.5°	1979.5	2036.6
150°	1922.8	1969.1
152.5°	1874.2	1909.2
155°	1818.4	1841.6
157.5°	1774.4	1790.7
160°	1748.0	1757.4
162.5°	1730.8	1739.7
165°	1705.9	1715.3
167.5°	1688.1	1692.0
170°	1683.2	1683.2
172.5°	1670.0	1666.5
175°	1662.1	1662.1
177.5°	1655.0	1651.1
180°	1651.1	1651.1



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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	4.69	5.54	5.69	6.55	7.90	17.88	18.73	18.88	19.74	21.09
	3H	5.40	6.16	6.40	7.18	8.55	19.73	20.49	20.74	21.51	22.88
	4H	5.69	6.41	6.72	7.44	8.82	20.38	21.09	21.40	22.12	23.50
	6H	5.94	6.61	6.98	7.64	9.03	20.81	21.47	21.84	22.50	23.89
	8H	6.01	6.64	7.05	7.69	9.08	20.93	21.56	21.97	22.61	24.00
	12H	6.03	6.63	7.07	7.67	9.08	21.00	21.60	22.05	22.64	24.06
4H	2H	11.91	12.63	12.94	13.66	15.04	18.16	18.88	19.18	19.90	21.28
	3H	13.48	14.08	14.52	15.14	16.53	20.21	20.81	21.24	21.86	23.25
	4H	13.57	14.12	14.62	15.17	16.58	20.97	21.53	22.02	22.57	23.99
	6H	13.58	14.06	14.64	15.13	16.53	21.52	21.99	22.57	23.06	24.47
	8H	13.56	14.00	14.61	15.07	16.49	21.68	22.13	22.74	23.19	24.61
	12H	13.51	13.92	14.59	14.99	16.42	21.78	22.18	22.85	23.26	24.69
8H	4H	15.02	15.46	16.07	16.53	17.95	21.03	21.48	22.09	22.54	23.96
	6H	15.26	15.63	16.34	16.73	18.15	21.67	22.03	22.74	23.14	24.56
	8H	15.28	15.60	16.36	16.69	18.13	21.89	22.21	22.97	23.30	24.74
	12H	15.25	15.53	16.34	16.61	18.09	22.04	22.32	23.13	23.40	24.88
12H	4H	15.16	15.57	16.24	16.64	18.07	20.99	21.39	22.06	22.46	23.89
	6H	15.52	15.85	16.61	16.93	18.37	21.65	21.97	22.73	23.06	24.50
	8H	15.59	15.87	16.68	16.96	18.44	21.88	22.17	22.97	23.25	24.73