

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: P938441

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938441
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

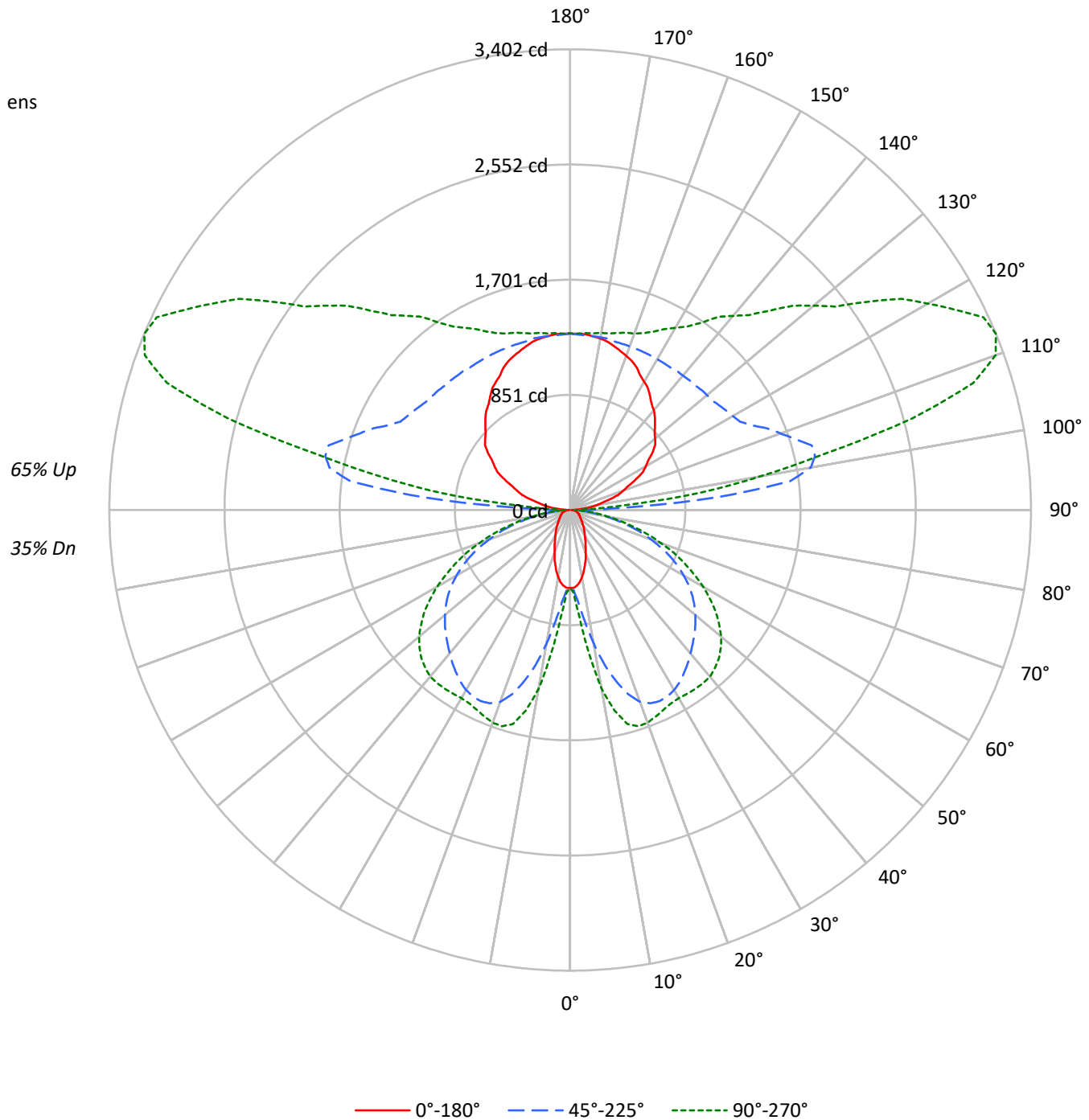
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12908.3 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 108.6
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

TEST NUMBER: P938441
CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-5000K

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			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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3564	3564	3564
5°	3480	4118	4790
10°	3155	6002	7941
15°	2681	7839	9589
20°	2182	9082	9773
25°	1819	9501	9575
30°	1534	9558	9556
35°	1355	9397	9804
40°	1180	9189	10059
45°	1068	9035	10098
50°	980	8896	9931
55°	937	8693	9491
60°	957	8308	8796
65°	995	7724	7840
70°	1057	6731	6624
75°	1168	5484	5169
80°	1266	3799	3483
85°	1103	2011	1783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10098 cd/sqm



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CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	0.6
10°-20°	330.3	2.6
20°-30°	577.7	4.5
30°-40°	743.7	5.8
40°-50°	830.7	6.4
50°-60°	795.6	6.2
60°-70°	630.5	4.9
70°-80°	370.8	2.9
80°-90°	108.0	0.8
90°-100°	635.1	4.9
100°-110°	1669.8	12.9
110°-120°	1731.4	13.4
120°-130°	1388.8	10.8
130°-140°	1089.7	8.4
140°-150°	836.4	6.5
150°-160°	602.3	4.7
160°-170°	368.5	2.9
170°-180°	124.5	1.0
0°-30°	982.5	7.6
0°-40°	1726.2	13.4
0°-60°	3352.4	26.0
0°-90°	4461.7	34.6
90°-120°	4036.3	31.3
90°-150°	7351.2	56.9
90°-180°	8447.0	65.4
0°-180°	12908.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	576	576	576	576	576	
5°	561	602	678	767	795	52
15°	420	776	1308	1586	1636	117
25°	269	880	1558	1626	1628	124
35°	182	841	1467	1550	1612	113
45°	124	671	1297	1486	1552	96
55°	89	426	1100	1278	1313	81
65°	70	226	817	919	932	70
75°	52	139	448	493	495	54
85°	18	43	111	122	124	20
90°	9	24	66	33	33	8
95°	84	329	1094	564	384	93
105°	301	456	1846	2803	2615	319
115°	534	649	1479	2950	3367	528
125°	743	833	1345	2273	2681	660
135°	886	975	1303	1835	2080	685
145°	1028	1093	1286	1565	1688	644
155°	1161	1194	1286	1412	1453	534
165°	1253	1270	1286	1337	1354	354
175°	1303	1303	1295	1312	1312	124
180°	1303	1303	1303	1303	1303	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1	576.1
2.5°	576.1	576.1	579.8	581.7	585.3	587.2	590.9	594.7	605.7	607.6	611.3
5°	561.3	568.7	592.8	602.0	627.9	663.2	677.9	702.1	752.1	766.9	776.2
7.5°	539.0	555.7	615.0	629.8	694.7	787.3	826.2	878.1	957.7	996.6	1028.1
10°	503.8	539.0	644.7	679.8	785.4	926.2	998.5	1070.7	1191.1	1244.8	1265.2
12.5°	464.9	522.4	676.2	724.3	876.2	1081.8	1168.8	1248.5	1385.6	1457.9	1469.0
15°	420.5	498.3	705.8	776.2	972.5	1211.5	1307.8	1406.0	1533.8	1585.6	1598.6
17.5°	381.6	479.8	733.6	807.7	1046.6	1328.2	1426.4	1507.9	1611.6	1646.8	1656.0
20°	333.4	450.2	752.1	848.4	1124.5	1413.4	1507.9	1570.9	1641.3	1663.5	1667.1
22.5°	298.3	418.7	763.2	863.2	1176.2	1465.2	1544.9	1594.9	1643.1	1650.5	1652.4
25°	268.6	383.4	761.3	879.9	1220.7	1496.7	1557.9	1594.9	1622.7	1626.4	1626.4
27.5°	240.8	344.5	753.9	883.6	1254.1	1504.1	1552.3	1578.3	1591.2	1598.6	1598.6
30°	216.8	307.5	735.4	876.2	1268.9	1496.7	1535.6	1548.6	1561.6	1572.6	1578.3
32.5°	198.3	272.3	707.6	861.3	1270.7	1478.2	1506.0	1513.4	1531.9	1557.9	1567.1
35°	181.5	237.1	676.2	841.0	1259.6	1448.6	1467.1	1474.5	1511.5	1550.5	1563.4
37.5°	164.9	211.2	635.4	805.8	1243.0	1413.4	1426.4	1439.4	1496.7	1543.0	1557.9
40°	148.2	188.9	587.2	766.9	1217.0	1370.7	1381.9	1402.2	1478.2	1531.9	1546.8
42.5°	135.3	170.4	535.3	726.2	1183.7	1322.6	1339.2	1368.9	1456.0	1513.4	1530.1
45°	124.1	151.9	479.8	670.6	1141.1	1272.6	1296.7	1337.5	1430.0	1485.6	1500.5
47.5°	113.0	138.9	422.4	613.2	1094.7	1222.6	1254.1	1300.4	1394.9	1448.6	1461.5
50°	103.8	126.0	364.9	552.0	1044.7	1168.8	1206.0	1254.1	1350.4	1400.4	1417.1
52.5°	96.4	114.9	311.2	490.9	987.3	1113.3	1155.9	1206.0	1296.7	1344.9	1356.0
55°	88.9	105.6	264.9	426.0	928.1	1054.0	1100.3	1148.5	1237.4	1278.1	1285.6
57.5°	85.2	98.1	226.0	364.9	865.1	987.3	1039.2	1083.7	1167.0	1198.5	1206.0
60°	79.6	92.6	196.4	313.0	796.6	924.3	968.8	1013.2	1083.7	1109.6	1115.1
62.5°	74.1	88.9	174.1	263.0	726.2	850.2	894.7	935.5	994.7	1013.2	1020.7
65°	70.4	85.2	157.5	226.0	653.9	772.4	816.9	852.1	900.3	918.8	922.5
67.5°	66.6	81.5	144.5	194.5	581.7	694.7	727.9	761.3	798.4	816.9	818.8
70°	61.1	77.8	133.4	172.3	507.5	605.7	633.5	668.7	698.3	707.6	713.2
72.5°	57.4	72.3	126.0	155.6	431.6	520.5	546.4	566.8	592.8	602.0	602.0
75°	51.9	64.9	118.5	138.9	353.8	426.0	448.3	468.7	489.0	492.8	487.2
77.5°	46.3	57.4	101.9	116.7	276.0	337.1	355.7	366.8	383.4	387.2	389.0
80°	38.9	50.0	79.6	90.8	200.0	248.3	261.2	270.4	285.3	285.3	289.0
82.5°	29.6	38.9	57.4	64.9	135.3	170.4	181.5	187.1	196.4	196.4	196.4
85°	18.5	24.1	37.0	42.6	81.5	103.8	111.1	113.0	120.4	122.3	122.3
87.5°	9.3	13.0	24.1	25.9	42.6	53.7	53.7	57.4	57.4	55.6	53.7
90°	8.8	15.8	22.7	24.5	38.5	57.1	66.5	59.1	44.3	33.3	33.3
92.5°	35.0	94.4	153.9	168.8	237.3	328.6	374.3	328.0	235.5	166.2	159.6
95°	83.9	192.7	301.6	328.8	583.9	924.0	1094.0	976.2	740.7	564.0	544.0
97.5°	145.2	241.2	337.1	361.2	786.5	1353.5	1637.0	1562.6	1413.7	1302.1	1264.0
100°	192.4	279.5	366.5	388.3	860.2	1489.5	1804.1	1809.5	1820.4	1828.6	1783.2
102.5°	232.6	313.9	395.1	415.4	894.0	1532.2	1851.3	1946.1	2135.7	2278.0	2239.1
105°	300.8	369.6	438.4	455.6	919.1	1537.0	1846.0	2058.6	2483.8	2802.7	2781.8
107.5°	370.8	434.9	499.0	515.0	923.7	1468.6	1741.1	2037.7	2630.7	3075.6	3080.6
110°	418.0	476.0	533.8	548.3	916.8	1407.9	1653.6	1985.1	2648.2	3145.5	3167.3



TEST NUMBER: P938441

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	464.4	519.5	574.7	588.5	917.0	1355.0	1574.0	1913.3	2591.9	3100.9	3134.3
115°	534.3	585.2	636.2	648.9	925.5	1294.3	1478.7	1805.6	2459.3	2949.6	2995.9
117.5°	603.4	649.6	695.9	707.5	942.7	1256.3	1413.2	1708.2	2298.1	2740.6	2792.0
120°	643.6	687.2	730.8	741.6	956.7	1243.5	1386.9	1656.5	2195.5	2599.8	2649.7
122.5°	683.0	726.9	770.9	781.8	976.8	1236.8	1366.8	1609.6	2095.0	2459.0	2508.3
125°	743.3	783.3	823.4	833.4	1003.9	1231.3	1344.9	1551.1	1963.4	2272.7	2318.1
127.5°	792.3	832.6	873.1	883.2	1031.0	1228.0	1326.5	1503.6	1857.6	2123.2	2161.5
130°	818.5	862.1	905.6	916.5	1050.9	1230.1	1319.6	1477.2	1792.4	2028.8	2064.1
132.5°	845.6	889.2	932.7	943.6	1066.9	1231.3	1313.4	1454.5	1736.7	1948.3	1980.0
135°	885.8	925.5	965.2	975.1	1084.4	1230.1	1303.0	1421.1	1657.4	1834.6	1861.9
137.5°	926.9	966.2	1005.5	1015.3	1110.6	1237.6	1301.2	1401.1	1600.9	1750.7	1773.0
140°	961.1	997.2	1033.3	1042.4	1126.6	1239.0	1295.1	1381.4	1553.9	1683.4	1704.2
142.5°	987.2	1020.7	1054.2	1062.5	1140.1	1243.4	1295.1	1370.9	1522.4	1636.1	1654.1
145°	1027.5	1056.7	1085.8	1093.1	1157.5	1243.4	1286.3	1348.3	1472.3	1565.4	1578.9
147.5°	1067.7	1096.1	1124.5	1131.6	1183.2	1251.9	1286.3	1335.1	1432.6	1505.8	1517.1
150°	1094.0	1119.6	1145.2	1151.7	1196.5	1256.4	1286.3	1327.6	1409.9	1471.7	1480.9
152.5°	1121.1	1140.5	1160.0	1164.8	1205.3	1259.3	1286.3	1321.5	1391.9	1444.6	1451.5
155°	1161.3	1175.7	1190.1	1193.6	1224.6	1265.8	1286.3	1314.3	1370.3	1412.2	1416.8
157.5°	1191.0	1205.0	1219.0	1222.5	1243.8	1272.1	1286.3	1308.1	1351.7	1384.3	1387.5
160°	1211.2	1222.0	1232.9	1235.6	1252.5	1275.0	1286.3	1305.0	1342.3	1370.3	1372.1
162.5°	1231.3	1239.4	1247.6	1249.6	1261.9	1278.2	1286.3	1302.0	1333.5	1357.2	1359.0
165°	1253.2	1260.5	1267.8	1269.7	1275.2	1282.6	1286.3	1297.7	1320.2	1337.1	1339.0
167.5°	1273.3	1276.7	1280.3	1281.1	1285.8	1292.0	1295.1	1302.5	1317.3	1328.3	1329.1
170°	1286.3	1289.8	1293.4	1294.2	1294.5	1294.9	1295.1	1302.5	1317.3	1328.3	1328.3
172.5°	1293.4	1294.1	1294.9	1295.1	1295.1	1295.1	1295.1	1300.9	1312.6	1321.3	1320.6
175°	1303.0	1303.0	1303.0	1303.0	1300.4	1296.9	1295.1	1298.8	1306.2	1311.7	1311.7
177.5°	1303.0	1303.0	1303.0	1303.0	1300.9	1298.2	1296.8	1299.7	1305.6	1310.0	1309.2
180°	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	576.1	576.1
2.5°	615.0	611.3
5°	790.9	794.7
7.5°	1065.1	1063.3
10°	1324.5	1341.1
12.5°	1513.4	1517.1
15°	1628.3	1635.6
17.5°	1672.7	1674.5
20°	1674.5	1670.9
22.5°	1654.1	1650.5
25°	1630.1	1628.3
27.5°	1607.9	1609.8
30°	1598.6	1604.1
32.5°	1598.6	1607.9
35°	1602.4	1611.6
37.5°	1600.5	1611.6
40°	1593.0	1606.0
42.5°	1572.6	1582.0
45°	1541.2	1552.3
47.5°	1500.5	1507.9
50°	1448.6	1456.0
52.5°	1383.7	1385.6
55°	1306.0	1313.4
57.5°	1222.6	1224.5
60°	1130.0	1135.5
62.5°	1031.8	1031.8
65°	928.1	931.7
67.5°	820.6	829.8
70°	711.3	713.2
72.5°	603.9	603.9
75°	492.8	494.6
77.5°	387.2	387.2
80°	287.1	289.0
82.5°	198.3	201.9
85°	124.1	124.1
87.5°	57.4	51.9
90°	33.3	33.3
92.5°	133.1	106.6
95°	463.9	383.9
97.5°	1111.6	959.3
100°	1601.7	1420.2
102.5°	2083.6	1928.2
105°	2698.2	2614.7
107.5°	3100.8	3121.0
110°	3254.3	3341.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3268.0	3401.7
115°	3181.3	3366.7
117.5°	2997.6	3203.2
120°	2849.5	3049.3
122.5°	2705.3	2902.4
125°	2499.6	2681.1
127.5°	2314.6	2467.8
130°	2205.6	2347.0
132.5°	2106.6	2233.4
135°	1971.2	2080.4
137.5°	1862.5	1951.9
140°	1787.8	1871.4
142.5°	1726.0	1797.9
145°	1633.3	1687.7
147.5°	1562.2	1607.3
150°	1517.4	1553.9
152.5°	1479.1	1506.7
155°	1435.1	1453.4
157.5°	1400.4	1413.2
160°	1379.5	1386.9
162.5°	1365.9	1372.9
165°	1346.3	1353.6
167.5°	1332.2	1335.3
170°	1328.3	1328.3
172.5°	1317.9	1315.2
175°	1311.7	1311.7
177.5°	1306.1	1303.0
180°	1303.0	1303.0



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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	3.81	4.57	4.88	5.65	7.12	16.97	17.74	18.05	18.81	20.29
	3H	4.51	5.19	5.59	6.28	7.77	18.80	19.48	19.88	20.57	22.06
	4H	4.80	5.45	5.89	6.54	8.03	19.44	20.09	20.53	21.17	22.67
	6H	5.05	5.64	6.15	6.73	8.24	19.86	20.46	20.96	21.55	23.06
	8H	5.11	5.68	6.22	6.79	8.29	19.97	20.54	21.08	21.65	23.15
	12H	5.12	5.67	6.24	6.77	8.29	20.04	20.58	21.15	21.68	23.21
4H	2H	11.00	11.65	12.10	12.74	14.24	17.24	17.89	18.34	18.97	20.47
	3H	12.56	13.10	13.67	14.22	15.73	19.27	19.81	20.37	20.92	22.43
	4H	12.65	13.15	13.76	14.26	15.79	20.03	20.53	21.14	21.63	23.16
	6H	12.66	13.09	13.78	14.21	15.74	20.55	20.98	21.67	22.11	23.63
	8H	12.63	13.03	13.75	14.15	15.69	20.71	21.11	21.83	22.23	23.77
	12H	12.58	12.95	13.72	14.08	15.62	20.80	21.16	21.93	22.29	23.84
8H	4H	14.08	14.49	15.20	15.60	17.14	20.08	20.48	21.20	21.60	23.14
	6H	14.32	14.65	15.46	15.82	17.35	20.70	21.03	21.84	22.19	23.73
	8H	14.34	14.63	15.49	15.77	17.33	20.91	21.20	22.06	22.35	23.90
	12H	14.30	14.56	15.45	15.70	17.29	21.05	21.31	22.20	22.44	24.04
12H	4H	14.22	14.59	15.36	15.72	17.26	20.03	20.39	21.16	21.52	23.07
	6H	14.58	14.87	15.73	16.01	17.57	20.68	20.97	21.83	22.11	23.67
	8H	14.64	14.90	15.79	16.04	17.63	20.90	21.16	22.05	22.30	23.89