

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: P938564

Luminaire Tested: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938564
REPORT IS A COMBINATION OF REPORTS P933640 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

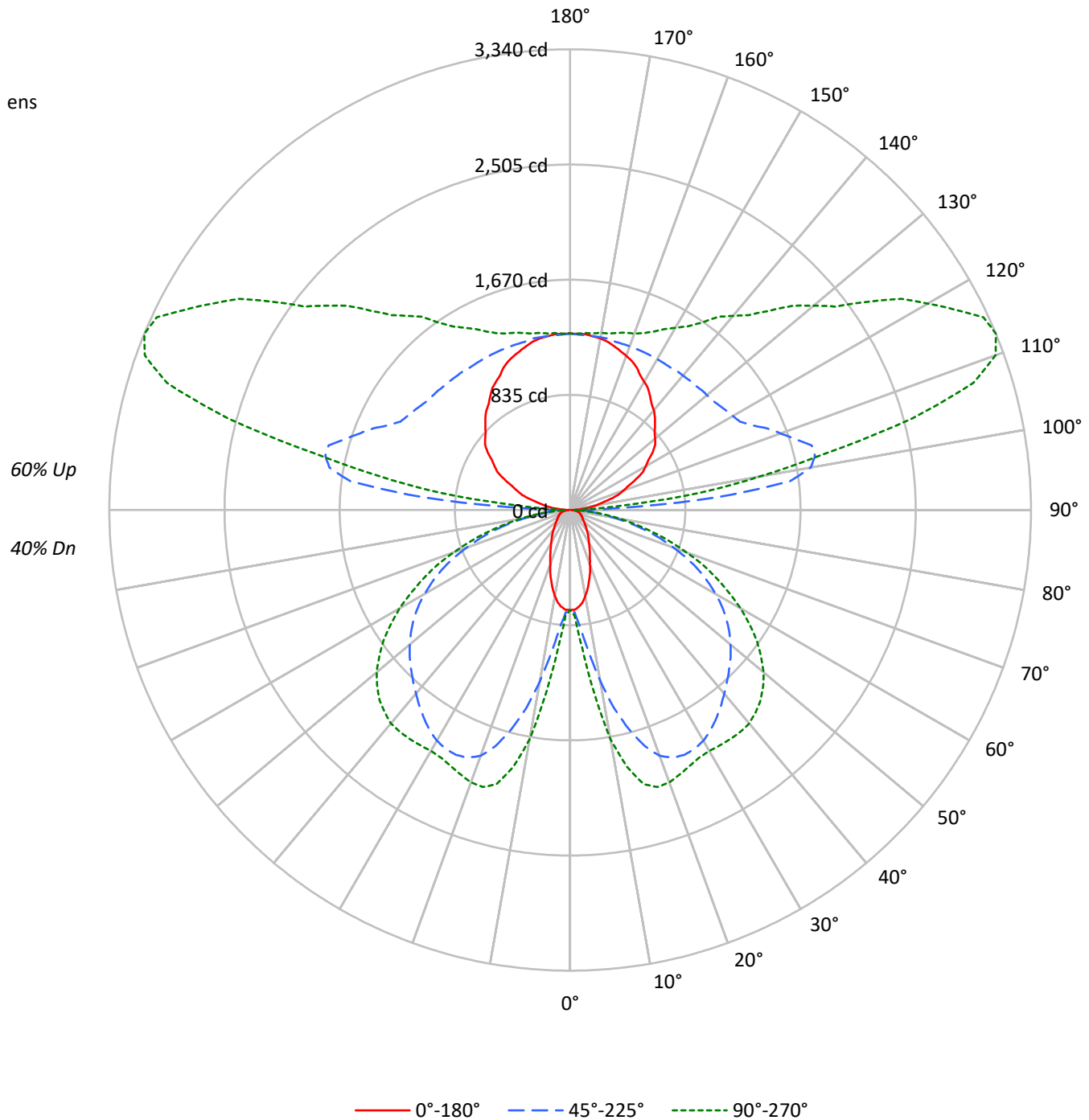
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13902.2 lumens
Efficiency: N/A
Efficacy: 111.4 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: General Diffuse

Input Watts (W): 124.8
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

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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	0
RCR																					
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4481	4481	4481
5°	4376	5178	6024
10°	3968	7547	9987
15°	3372	9857	12059
20°	2744	11420	12290
25°	2288	11948	12040
30°	1929	12020	12017
35°	1704	11817	12328
40°	1485	11554	12649
45°	1343	11361	12698
50°	1231	11187	12488
55°	1178	10933	11935
60°	1204	10448	11060
65°	1252	9713	9860
70°	1330	8465	8330
75°	1467	6895	6500
80°	1592	4776	4380
85°	1389	2530	2242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12698 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	0.7
10°-20°	415.3	3.0
20°-30°	726.5	5.2
30°-40°	935.2	6.7
40°-50°	1044.6	7.5
50°-60°	1000.5	7.2
60°-70°	792.9	5.7
70°-80°	466.2	3.4
80°-90°	134.4	1.0
90°-100°	623.6	4.5
100°-110°	1639.4	11.8
110°-120°	1699.9	12.2
120°-130°	1363.5	9.8
130°-140°	1069.9	7.7
140°-150°	821.2	5.9
150°-160°	591.4	4.3
160°-170°	361.8	2.6
170°-180°	122.2	0.9
0°-30°	1235.5	8.9
0°-40°	2170.7	15.6
0°-60°	4215.7	30.3
0°-90°	5609.2	40.3
90°-120°	3962.9	28.5
90°-150°	7217.5	51.9
90°-180°	8293.0	59.7
0°-180°	13902.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	706	757	852	964	999	65
15°	529	976	1645	1994	2057	147
25°	338	1106	1959	2045	2048	156
35°	228	1058	1845	1950	2027	143
45°	156	843	1631	1868	1952	121
55°	112	536	1384	1607	1652	102
65°	89	284	1027	1155	1172	88
75°	65	175	564	620	622	68
85°	23	54	140	154	156	25
90°	9	24	65	33	33	9
95°	82	323	1074	554	377	91
105°	295	447	1812	2752	2567	313
115°	525	637	1452	2896	3305	518
125°	730	818	1320	2231	2632	648
135°	870	957	1279	1801	2042	673
145°	1009	1073	1263	1537	1657	632
155°	1140	1172	1263	1386	1427	524
165°	1230	1247	1263	1313	1329	347
175°	1279	1279	1272	1288	1288	121
180°	1279	1279	1279	1279	1279	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	724.4	724.4	724.4	724.4	724.4	724.4	724.4	724.4	724.4	724.4	724.4
2.5°	724.4	724.4	729.1	731.4	736.1	738.5	743.1	747.7	761.7	764.1	768.8
5°	705.8	715.2	745.4	757.1	789.7	833.9	852.5	882.8	945.8	964.4	976.1
7.5°	677.9	698.8	773.3	792.0	873.6	990.0	1038.9	1104.2	1204.3	1253.2	1292.8
10°	633.6	677.9	810.6	854.9	987.7	1164.7	1255.6	1346.4	1497.9	1565.4	1591.0
12.5°	584.7	656.9	850.2	910.8	1101.8	1360.4	1469.9	1570.0	1742.4	1833.3	1847.2
15°	528.8	626.6	887.5	976.1	1222.9	1523.5	1644.6	1768.0	1928.8	1994.0	2010.3
17.5°	479.9	603.3	922.5	1015.6	1316.2	1670.2	1793.6	1896.1	2026.6	2070.9	2082.5
20°	419.3	566.0	945.8	1066.9	1414.0	1777.4	1896.1	1975.3	2063.9	2091.8	2096.5
22.5°	375.1	526.5	959.7	1085.5	1479.2	1842.5	1942.8	2005.6	2066.2	2075.6	2077.8
25°	337.8	482.2	957.4	1106.5	1535.1	1882.2	1959.1	2005.6	2040.6	2045.3	2045.3
27.5°	302.8	433.2	948.1	1111.1	1577.1	1891.5	1952.0	1984.7	2000.9	2010.3	2010.3
30°	272.6	386.7	924.8	1101.8	1595.7	1882.2	1931.1	1947.4	1963.7	1977.7	1984.7
32.5°	249.2	342.4	889.8	1083.2	1598.0	1858.9	1893.8	1903.1	1926.4	1959.1	1970.7
35°	228.3	298.2	850.2	1057.6	1584.0	1821.6	1844.9	1854.2	1900.8	1949.7	1966.1
37.5°	207.3	265.6	799.0	1013.3	1563.0	1777.4	1793.6	1810.0	1882.2	1940.4	1959.1
40°	186.4	237.6	738.5	964.4	1530.4	1723.8	1737.7	1763.4	1858.9	1926.4	1945.1
42.5°	170.0	214.3	673.2	913.1	1488.5	1663.2	1684.2	1721.4	1830.9	1903.1	1924.1
45°	156.1	191.0	603.3	843.3	1434.9	1600.3	1630.6	1681.9	1798.3	1868.2	1886.9
47.5°	142.1	174.7	531.1	771.0	1376.7	1537.4	1577.1	1635.2	1754.1	1821.6	1838.0
50°	130.4	158.4	458.9	694.1	1313.8	1469.9	1516.5	1577.1	1698.2	1761.1	1782.0
52.5°	121.1	144.4	391.3	617.3	1241.5	1399.9	1453.5	1516.5	1630.6	1691.1	1705.2
55°	111.8	132.8	333.1	535.8	1167.0	1325.4	1383.7	1444.3	1556.0	1607.3	1616.6
57.5°	107.2	123.4	284.2	458.9	1087.8	1241.5	1306.8	1362.7	1467.6	1507.1	1516.5
60°	100.1	116.5	247.0	393.7	1001.7	1162.4	1218.3	1274.2	1362.7	1395.4	1402.3
62.5°	93.1	111.8	219.0	330.7	913.1	1069.2	1125.1	1176.4	1250.9	1274.2	1283.5
65°	88.6	107.2	198.0	284.2	822.3	971.4	1027.3	1071.5	1132.1	1155.4	1160.1
67.5°	83.9	102.5	181.7	244.6	731.4	873.6	915.5	957.4	1004.0	1027.3	1029.7
70°	76.9	97.8	167.8	216.7	638.3	761.7	796.7	840.9	878.2	889.8	896.9
72.5°	72.2	90.9	158.4	195.7	542.7	654.6	687.2	712.8	745.4	757.1	757.1
75°	65.2	81.5	149.1	174.7	444.9	535.8	563.7	589.3	614.9	619.6	612.7
77.5°	58.3	72.2	128.1	146.7	347.1	424.0	447.3	461.2	482.2	486.8	489.2
80°	48.9	62.9	100.1	114.2	251.5	312.1	328.4	340.1	358.7	358.7	363.4
82.5°	37.3	48.9	72.2	81.5	170.0	214.3	228.3	235.3	247.0	247.0	247.0
85°	23.3	30.3	46.6	53.6	102.5	130.4	139.8	142.1	151.4	153.7	153.7
87.5°	11.7	16.3	30.3	32.6	53.6	67.5	67.5	72.2	72.2	69.9	67.5
90°	8.6	15.5	22.3	24.0	37.8	56.1	65.2	58.0	43.5	32.7	32.7
92.5°	34.3	92.7	151.1	165.7	233.0	322.7	367.4	322.0	231.3	163.2	156.7
95°	82.4	189.2	296.1	322.8	573.3	907.1	1074.1	958.4	727.2	553.7	534.1
97.5°	142.5	236.8	331.0	354.6	772.1	1328.9	1607.3	1534.2	1388.0	1278.4	1241.0
100°	188.9	274.4	359.8	381.2	844.6	1462.3	1771.2	1776.6	1787.3	1795.3	1750.8
102.5°	228.4	308.2	387.9	407.8	877.8	1504.3	1817.6	1910.6	2096.8	2236.5	2198.3
105°	295.3	362.9	430.4	447.3	902.4	1509.1	1812.4	2021.1	2438.6	2751.7	2731.2
107.5°	364.0	427.0	490.0	505.6	906.9	1441.9	1709.4	2000.6	2582.9	3019.6	3024.5
110°	410.4	467.3	524.1	538.3	900.1	1382.3	1623.5	1949.0	2600.0	3088.2	3109.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	455.9	510.1	564.2	577.8	900.4	1330.4	1545.4	1878.5	2544.8	3044.5	3077.3
115°	524.6	574.6	624.6	637.1	908.6	1270.7	1451.8	1772.7	2414.5	2895.9	2941.4
117.5°	592.4	637.8	683.2	694.6	925.6	1233.5	1387.5	1677.1	2256.2	2690.7	2741.2
120°	631.9	674.7	717.5	728.1	939.3	1220.9	1361.7	1626.3	2155.6	2552.5	2601.5
122.5°	670.6	713.7	756.8	767.6	959.0	1214.3	1341.9	1580.3	2056.8	2414.3	2462.6
125°	729.8	769.0	808.4	818.2	985.6	1208.9	1320.5	1522.9	1927.7	2231.4	2275.9
127.5°	777.8	817.5	857.2	867.1	1012.2	1205.7	1302.4	1476.2	1823.8	2084.5	2122.2
130°	803.6	846.4	889.2	899.8	1031.8	1207.7	1295.6	1450.3	1759.8	1991.9	2026.5
132.5°	830.2	873.0	915.8	926.4	1047.5	1208.9	1289.5	1428.0	1705.1	1912.8	1944.0
135°	869.7	908.6	947.6	957.3	1064.6	1207.7	1279.3	1395.3	1627.3	1801.3	1828.0
137.5°	910.1	948.6	987.2	996.8	1090.4	1215.1	1277.5	1375.6	1571.7	1718.8	1740.8
140°	943.6	979.1	1014.5	1023.4	1106.1	1216.4	1271.6	1356.3	1525.7	1652.8	1673.2
142.5°	969.3	1002.1	1035.0	1043.1	1119.3	1220.8	1271.6	1346.0	1494.7	1606.3	1624.0
145°	1008.8	1037.5	1066.1	1073.2	1136.5	1220.8	1262.9	1323.8	1445.6	1536.9	1550.2
147.5°	1048.3	1076.2	1104.0	1111.0	1161.6	1229.2	1262.9	1310.8	1406.6	1478.4	1489.5
150°	1074.1	1099.2	1124.4	1130.7	1174.7	1233.6	1262.9	1303.4	1384.3	1444.9	1453.9
152.5°	1100.7	1119.8	1138.9	1143.6	1183.4	1236.4	1262.9	1297.4	1366.5	1418.3	1425.1
155°	1140.1	1154.3	1168.4	1171.9	1202.3	1242.7	1262.9	1290.4	1345.3	1386.5	1391.0
157.5°	1169.3	1183.1	1196.9	1200.3	1221.2	1249.0	1262.9	1284.3	1327.1	1359.1	1362.2
160°	1189.1	1199.8	1210.4	1213.1	1229.7	1251.8	1262.9	1281.3	1317.9	1345.3	1347.2
162.5°	1208.9	1216.9	1224.8	1226.9	1238.9	1254.9	1262.9	1278.3	1309.3	1332.5	1334.2
165°	1230.4	1237.6	1244.8	1246.6	1252.0	1259.3	1262.9	1274.0	1296.2	1312.8	1314.6
167.5°	1250.1	1253.5	1257.0	1257.8	1262.4	1268.5	1271.6	1278.8	1293.3	1304.1	1304.9
170°	1262.9	1266.3	1269.8	1270.6	1270.9	1271.4	1271.6	1278.8	1293.3	1304.1	1304.1
172.5°	1269.8	1270.5	1271.4	1271.6	1271.6	1271.6	1271.6	1277.2	1288.7	1297.3	1296.6
175°	1279.3	1279.3	1279.3	1279.3	1276.7	1273.3	1271.6	1275.1	1282.4	1287.8	1287.8
177.5°	1279.3	1279.3	1279.3	1279.3	1277.2	1274.6	1273.2	1276.1	1281.8	1286.1	1285.4
180°	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	724.4	724.4
2.5°	773.3	768.8
5°	994.7	999.4
7.5°	1339.5	1337.1
10°	1665.5	1686.5
12.5°	1903.1	1907.8
15°	2047.6	2056.9
17.5°	2103.4	2105.8
20°	2105.8	2101.2
22.5°	2080.1	2075.6
25°	2049.9	2047.6
27.5°	2022.0	2024.3
30°	2010.3	2017.3
32.5°	2010.3	2022.0
35°	2015.0	2026.6
37.5°	2012.6	2026.6
40°	2003.3	2019.6
42.5°	1977.7	1989.4
45°	1938.1	1952.0
47.5°	1886.9	1896.1
50°	1821.6	1830.9
52.5°	1740.0	1742.4
55°	1642.2	1651.6
57.5°	1537.4	1539.7
60°	1421.0	1427.9
62.5°	1297.5	1297.5
65°	1167.0	1171.7
67.5°	1031.9	1043.6
70°	894.5	896.9
72.5°	759.4	759.4
75°	619.6	621.9
77.5°	486.8	486.8
80°	361.0	363.4
82.5°	249.2	253.9
85°	156.1	156.1
87.5°	72.2	65.2
90°	32.7	32.7
92.5°	130.7	104.7
95°	455.5	376.9
97.5°	1091.4	941.8
100°	1572.6	1394.3
102.5°	2045.7	1893.1
105°	2649.1	2567.1
107.5°	3044.4	3064.2
110°	3195.0	3280.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3208.5	3339.8
115°	3123.4	3305.4
117.5°	2943.0	3144.9
120°	2797.7	2993.8
122.5°	2656.1	2849.5
125°	2454.1	2632.3
127.5°	2272.5	2422.9
130°	2165.5	2304.3
132.5°	2068.3	2192.7
135°	1935.3	2042.5
137.5°	1828.6	1916.3
140°	1755.3	1837.3
142.5°	1694.6	1765.2
145°	1603.6	1657.0
147.5°	1533.7	1578.1
150°	1489.8	1525.7
152.5°	1452.2	1479.3
155°	1408.9	1426.9
157.5°	1374.9	1387.5
160°	1354.4	1361.7
162.5°	1341.0	1347.9
165°	1321.8	1329.0
167.5°	1308.0	1311.0
170°	1304.1	1304.1
172.5°	1293.9	1291.3
175°	1287.8	1287.8
177.5°	1282.3	1279.3
180°	1279.3	1279.3



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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	5.26	6.07	6.29	7.11	8.51	18.43	19.24	19.45	20.28	21.68
	3H	5.96	6.69	7.00	7.74	9.16	20.26	20.98	21.29	22.03	23.45
	4H	6.26	6.95	7.31	8.00	9.43	20.89	21.59	21.95	22.64	24.06
	6H	6.51	7.14	7.57	8.20	9.64	21.32	21.95	22.38	23.01	24.45
	8H	6.57	7.18	7.64	8.25	9.68	21.44	22.04	22.50	23.11	24.55
	12H	6.59	7.16	7.66	8.23	9.69	21.50	22.08	22.57	23.14	24.60
4H	2H	12.46	13.15	13.52	14.20	15.63	18.69	19.38	19.75	20.44	21.86
	3H	14.02	14.60	15.09	15.68	17.12	20.73	21.31	21.80	22.39	23.83
	4H	14.12	14.65	15.19	15.72	17.18	21.49	22.02	22.56	23.09	24.55
	6H	14.12	14.58	15.21	15.67	17.13	22.02	22.48	23.10	23.57	25.03
	8H	14.10	14.53	15.18	15.61	17.08	22.18	22.61	23.26	23.69	25.16
	12H	14.05	14.44	15.15	15.54	17.02	22.27	22.66	23.37	23.75	25.23
8H	4H	15.55	15.98	16.64	17.07	18.54	21.55	21.97	22.63	23.06	24.53
	6H	15.79	16.15	16.90	17.27	18.74	22.17	22.52	23.27	23.65	25.12
	8H	15.81	16.12	16.92	17.23	18.72	22.39	22.70	23.50	23.81	25.29
	12H	15.78	16.05	16.89	17.16	18.68	22.52	22.80	23.64	23.90	25.43
12H	4H	15.69	16.08	16.79	17.18	18.66	21.50	21.88	22.60	22.98	24.46
	6H	16.05	16.36	17.16	17.47	18.96	22.15	22.46	23.26	23.57	25.06
	8H	16.12	16.39	17.23	17.50	19.02	22.38	22.65	23.49	23.76	25.28