

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: P938463

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938463
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-93050-1D-UNV-STD-W-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

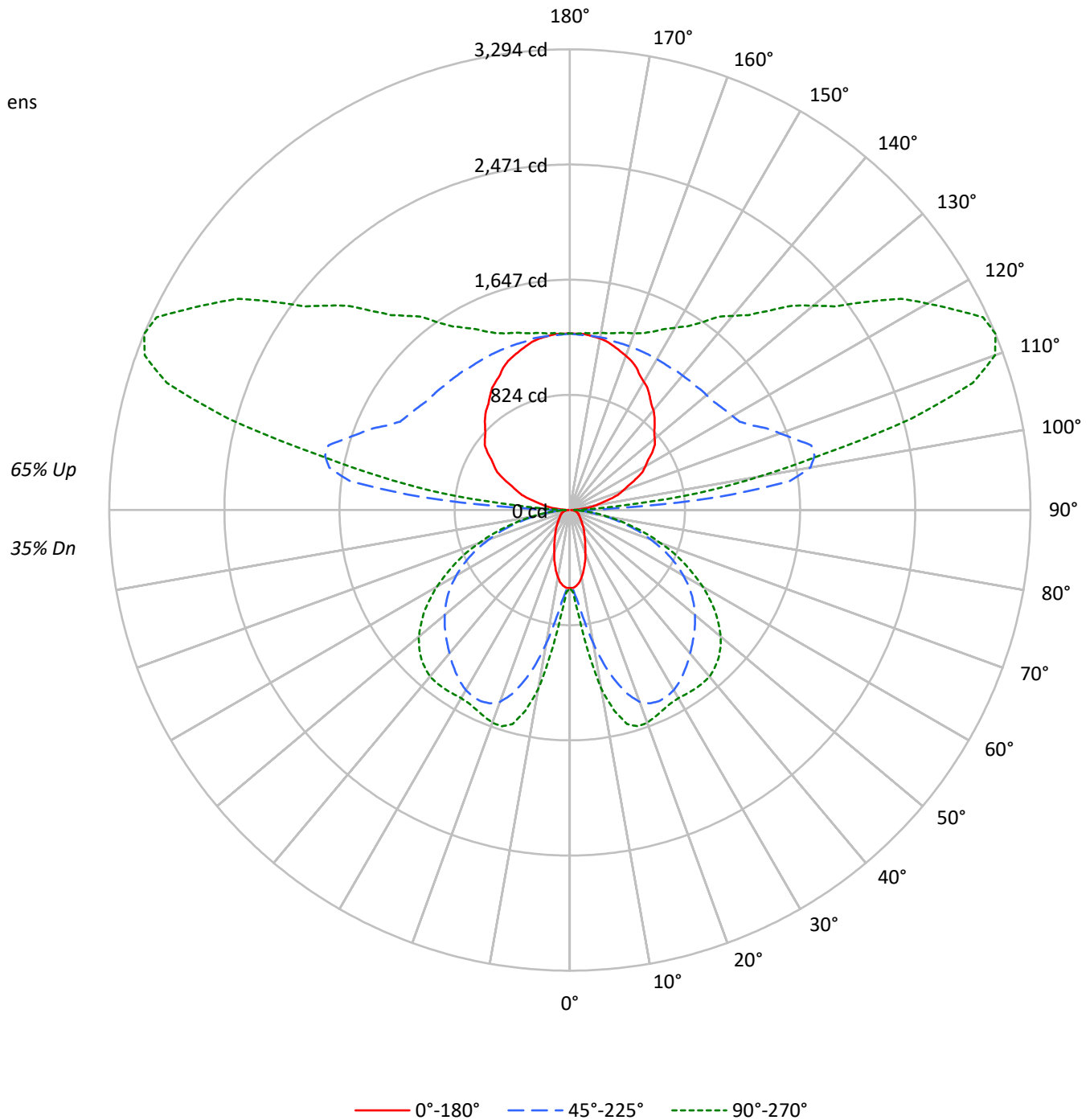
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12500.3 lumens
Efficiency: N/A
Efficacy: 115.1 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

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CATALOG NUMBER: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-4000K

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°	3451	3451	3451
5°	3370	3988	4639
10°	3056	5812	7690
15°	2596	7591	9286
20°	2113	8795	9464
25°	1762	9201	9272
30°	1485	9257	9254
35°	1312	9100	9494
40°	1143	8898	9741
45°	1034	8749	9779
50°	948	8615	9617
55°	907	8419	9191
60°	927	8046	8517
65°	964	7480	7593
70°	1024	6519	6414
75°	1130	5310	5005
80°	1227	3678	3374
85°	1067	1947	1727

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9779 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	0.6
10°-20°	319.8	2.6
20°-30°	559.4	4.5
30°-40°	720.2	5.8
40°-50°	804.4	6.4
50°-60°	770.4	6.2
60°-70°	610.6	4.9
70°-80°	359.0	2.9
80°-90°	104.6	0.8
90°-100°	615.1	4.9
100°-110°	1617.0	12.9
110°-120°	1676.7	13.4
120°-130°	1344.9	10.8
130°-140°	1055.3	8.4
140°-150°	810.0	6.5
150°-160°	583.3	4.7
160°-170°	356.9	2.9
170°-180°	120.6	1.0
0°-30°	951.5	7.6
0°-40°	1671.6	13.4
0°-60°	3246.5	26.0
0°-90°	4320.6	34.6
90°-120°	3908.8	31.3
90°-150°	7118.9	56.9
90°-180°	8180.0	65.4
0°-180°	12500.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	544	583	656	743	770	50
15°	407	752	1266	1536	1584	113
25°	260	852	1509	1575	1577	120
35°	176	814	1421	1502	1561	110
45°	120	649	1256	1439	1503	93
55°	86	413	1066	1238	1272	78
65°	68	219	791	890	902	68
75°	50	134	434	477	479	53
85°	18	41	108	118	120	19
90°	8	24	64	32	32	8
95°	81	318	1059	546	372	90
105°	291	441	1788	2714	2532	309
115°	517	628	1432	2856	3260	511
125°	720	807	1302	2201	2596	639
135°	858	944	1262	1777	2015	664
145°	995	1059	1246	1516	1634	623
155°	1125	1156	1246	1368	1407	517
165°	1214	1230	1246	1295	1311	342
175°	1262	1262	1254	1270	1270	120
180°	1262	1262	1262	1262	1262	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9	557.9
2.5°	557.9	557.9	561.5	563.3	566.8	568.6	572.2	575.9	586.5	588.4	592.0
5°	543.5	550.7	574.1	583.0	608.1	642.2	656.5	679.9	728.3	742.7	751.6
7.5°	522.0	538.1	595.6	609.9	672.7	762.4	800.1	850.3	927.4	965.1	995.6
10°	487.9	522.0	624.3	658.3	760.6	896.9	966.9	1036.9	1153.4	1205.5	1225.2
12.5°	450.2	505.9	654.8	701.4	848.5	1047.6	1131.9	1209.0	1341.8	1411.8	1422.6
15°	407.2	482.5	683.5	751.6	941.7	1173.2	1266.5	1361.5	1485.3	1535.5	1548.1
17.5°	369.6	464.6	710.4	782.1	1013.5	1286.2	1381.3	1460.2	1560.7	1594.7	1603.7
20°	322.9	435.9	728.3	821.6	1088.9	1368.7	1460.2	1521.2	1589.4	1610.9	1614.4
22.5°	288.8	405.4	739.1	835.9	1139.1	1418.9	1496.1	1544.5	1591.2	1598.3	1600.1
25°	260.1	371.3	737.3	852.1	1182.1	1449.4	1508.6	1544.5	1571.5	1575.0	1575.0
27.5°	233.2	333.6	730.1	855.6	1214.5	1456.6	1503.2	1528.4	1540.9	1548.1	1548.1
30°	209.9	297.8	712.2	848.5	1228.8	1449.4	1487.1	1499.7	1512.3	1522.9	1528.4
32.5°	192.0	263.7	685.2	834.1	1230.6	1431.5	1458.4	1465.5	1483.5	1508.6	1517.6
35°	175.8	229.6	654.8	814.4	1219.8	1402.8	1420.7	1427.9	1463.7	1501.5	1514.0
37.5°	159.7	204.5	615.3	780.3	1203.7	1368.7	1381.3	1393.9	1449.4	1494.2	1508.6
40°	143.5	182.9	568.6	742.7	1178.5	1327.4	1338.2	1357.9	1431.5	1483.5	1497.9
42.5°	131.0	165.0	518.4	703.2	1146.3	1280.8	1296.9	1325.6	1410.0	1465.5	1481.7
45°	120.2	147.1	464.6	649.4	1105.0	1232.4	1255.7	1295.2	1384.8	1438.7	1453.1
47.5°	109.4	134.5	409.0	593.8	1060.1	1184.0	1214.5	1259.3	1350.8	1402.8	1415.3
50°	100.5	122.0	353.4	534.6	1011.7	1131.9	1167.8	1214.5	1307.7	1356.1	1372.3
52.5°	93.3	111.2	301.3	475.4	956.1	1078.1	1119.3	1167.8	1255.7	1302.3	1313.1
55°	86.1	102.3	256.5	412.6	898.7	1020.7	1065.6	1112.2	1198.3	1237.7	1245.0
57.5°	82.6	95.0	218.9	353.4	837.7	956.1	1006.4	1049.4	1130.1	1160.6	1167.8
60°	77.1	89.7	190.2	303.1	771.4	895.1	938.2	981.2	1049.4	1074.5	1079.9
62.5°	71.8	86.1	168.6	254.7	703.2	823.3	866.4	905.9	963.3	981.2	988.4
65°	68.2	82.6	152.5	218.9	633.3	748.0	791.1	825.1	871.9	889.8	893.3
67.5°	64.5	78.9	139.9	188.4	563.3	672.7	704.9	737.3	773.2	791.1	792.9
70°	59.2	75.3	129.2	166.8	491.5	586.5	613.5	647.6	676.2	685.2	690.6
72.5°	55.6	70.0	122.0	150.7	418.0	504.1	529.2	548.9	574.1	583.0	583.0
75°	50.2	62.8	114.8	134.5	342.6	412.6	434.1	453.8	473.6	477.2	471.8
77.5°	44.8	55.6	98.7	113.1	267.3	326.5	344.4	355.2	371.3	374.9	376.7
80°	37.7	48.4	77.1	87.9	193.7	240.4	252.9	261.9	276.3	276.3	279.9
82.5°	28.7	37.7	55.6	62.8	131.0	165.0	175.8	181.2	190.2	190.2	190.2
85°	17.9	23.4	35.8	41.3	78.9	100.5	107.6	109.4	116.6	118.4	118.4
87.5°	9.0	12.6	23.4	25.1	41.3	52.0	52.0	55.6	55.6	53.9	52.0
90°	8.5	15.3	22.0	23.7	37.3	55.3	64.4	57.2	42.9	32.2	32.2
92.5°	33.9	91.4	149.1	163.5	229.8	318.3	362.4	317.6	228.1	160.9	154.5
95°	81.3	186.6	292.1	318.4	565.5	894.8	1059.4	945.4	717.2	546.2	526.8
97.5°	140.6	233.5	326.5	349.8	761.6	1310.8	1585.3	1513.2	1369.1	1261.0	1224.0
100°	186.3	270.6	354.9	376.0	833.0	1442.4	1747.1	1752.3	1762.9	1770.8	1726.9
102.5°	225.3	304.0	382.6	402.3	865.8	1483.7	1792.8	1884.5	2068.2	2206.0	2168.3
105°	291.3	357.9	424.5	441.2	890.0	1488.4	1787.7	1993.5	2405.3	2714.1	2693.8
107.5°	359.1	421.2	483.3	498.7	894.5	1422.2	1686.0	1973.3	2547.6	2978.3	2983.2
110°	404.8	460.9	516.9	531.0	887.8	1363.4	1601.3	1922.4	2564.5	3046.0	3067.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	449.7	503.1	556.5	569.9	888.1	1312.2	1524.3	1852.9	2510.0	3002.9	3035.3
115°	517.4	566.7	616.1	628.4	896.2	1253.4	1432.0	1748.5	2381.6	2856.3	2901.2
117.5°	584.3	629.1	673.9	685.1	912.9	1216.6	1368.5	1654.2	2225.4	2653.9	2703.7
120°	623.3	665.5	707.7	718.2	926.4	1204.2	1343.1	1604.1	2126.1	2517.6	2566.0
122.5°	661.4	703.9	746.5	757.1	945.9	1197.7	1323.6	1558.7	2028.7	2381.3	2429.0
125°	719.8	758.5	797.4	807.0	972.1	1192.4	1302.4	1502.1	1901.4	2200.9	2244.8
127.5°	767.2	806.3	845.5	855.3	998.4	1189.2	1284.6	1456.0	1798.9	2056.1	2093.2
130°	792.6	834.8	877.0	887.5	1017.7	1191.2	1277.9	1430.5	1735.7	1964.7	1998.9
132.5°	818.9	861.1	903.3	913.8	1033.2	1192.4	1271.9	1408.5	1681.8	1886.7	1917.4
135°	857.8	896.2	934.7	944.3	1050.1	1191.2	1261.8	1376.2	1605.0	1776.7	1803.1
137.5°	897.6	935.7	973.7	983.2	1075.5	1198.5	1260.1	1356.8	1550.3	1695.4	1717.0
140°	930.7	965.7	1000.7	1009.4	1091.0	1199.8	1254.2	1337.7	1504.8	1630.2	1650.4
142.5°	956.0	988.4	1020.8	1028.9	1104.0	1204.1	1254.2	1327.6	1474.3	1584.4	1601.8
145°	995.0	1023.3	1051.5	1058.6	1121.0	1204.1	1245.7	1305.7	1425.8	1515.9	1529.0
147.5°	1034.0	1061.5	1088.9	1095.8	1145.8	1212.4	1245.7	1292.9	1387.3	1458.2	1469.2
150°	1059.4	1084.2	1109.0	1115.2	1158.7	1216.7	1245.7	1285.6	1365.3	1425.2	1434.0
152.5°	1085.7	1104.5	1123.3	1128.0	1167.2	1219.5	1245.7	1279.7	1347.9	1398.9	1405.6
155°	1124.6	1138.5	1152.5	1155.9	1185.9	1225.8	1245.7	1272.7	1327.0	1367.6	1372.0
157.5°	1153.4	1166.9	1180.5	1183.9	1204.5	1231.9	1245.7	1266.8	1309.0	1340.5	1343.6
160°	1172.9	1183.4	1193.9	1196.5	1212.9	1234.7	1245.7	1263.8	1299.9	1327.0	1328.8
162.5°	1192.4	1200.2	1208.1	1210.1	1222.0	1237.8	1245.7	1260.9	1291.4	1314.3	1316.0
165°	1213.5	1220.7	1227.8	1229.6	1234.9	1242.1	1245.7	1256.6	1278.4	1294.8	1296.6
167.5°	1233.0	1236.4	1239.8	1240.6	1245.1	1251.2	1254.2	1261.3	1275.6	1286.3	1287.0
170°	1245.7	1249.0	1252.5	1253.3	1253.6	1254.0	1254.2	1261.3	1275.6	1286.3	1286.3
172.5°	1252.5	1253.2	1254.0	1254.2	1254.2	1254.2	1254.2	1259.8	1271.1	1279.5	1278.9
175°	1261.8	1261.8	1261.8	1261.8	1259.3	1255.9	1254.2	1257.7	1264.9	1270.2	1270.2
177.5°	1261.8	1261.8	1261.8	1261.8	1259.8	1257.2	1255.8	1258.6	1264.3	1268.6	1267.9
180°	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	557.9	557.9
2.5°	595.6	592.0
5°	765.9	769.6
7.5°	1031.4	1029.7
10°	1282.6	1298.7
12.5°	1465.5	1469.2
15°	1576.8	1583.9
17.5°	1619.9	1621.6
20°	1621.6	1618.1
22.5°	1601.9	1598.3
25°	1578.6	1576.8
27.5°	1557.1	1558.9
30°	1548.1	1553.4
32.5°	1548.1	1557.1
35°	1551.7	1560.7
37.5°	1549.9	1560.7
40°	1542.7	1555.2
42.5°	1522.9	1532.0
45°	1492.5	1503.2
47.5°	1453.1	1460.2
50°	1402.8	1410.0
52.5°	1340.0	1341.8
55°	1264.7	1271.8
57.5°	1184.0	1185.8
60°	1094.2	1099.6
62.5°	999.2	999.2
65°	898.7	902.3
67.5°	794.6	803.6
70°	688.8	690.6
72.5°	584.8	584.8
75°	477.2	478.9
77.5°	374.9	374.9
80°	278.1	279.9
82.5°	192.0	195.5
85°	120.2	120.2
87.5°	55.6	50.2
90°	32.2	32.2
92.5°	128.9	103.3
95°	449.2	371.7
97.5°	1076.5	929.0
100°	1551.1	1375.3
102.5°	2017.8	1867.3
105°	2612.9	2532.0
107.5°	3002.8	3022.3
110°	3151.4	3235.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3164.7	3294.2
115°	3080.7	3260.3
117.5°	2902.9	3102.0
120°	2759.5	2952.9
122.5°	2619.8	2810.6
125°	2420.6	2596.4
127.5°	2241.5	2389.8
130°	2135.9	2272.9
132.5°	2040.1	2162.8
135°	1908.9	2014.6
137.5°	1803.6	1890.2
140°	1731.3	1812.2
142.5°	1671.5	1741.1
145°	1581.7	1634.4
147.5°	1512.8	1556.5
150°	1469.4	1504.8
152.5°	1432.3	1459.1
155°	1389.7	1407.4
157.5°	1356.1	1368.5
160°	1335.9	1343.1
162.5°	1322.7	1329.5
165°	1303.7	1310.9
167.5°	1290.1	1293.1
170°	1286.3	1286.3
172.5°	1276.3	1273.7
175°	1270.2	1270.2
177.5°	1264.8	1261.8
180°	1261.8	1261.8



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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	3.70	4.46	4.77	5.54	7.01	16.86	17.62	17.93	18.70	20.17
	3H	4.39	5.08	5.48	6.17	7.66	18.69	19.37	19.77	20.46	21.95
	4H	4.69	5.34	5.78	6.43	7.92	19.32	19.97	20.42	21.06	22.56
	6H	4.93	5.53	6.04	6.62	8.13	19.75	20.34	20.85	21.44	22.95
	8H	5.00	5.57	6.10	6.68	8.18	19.86	20.43	20.97	21.54	23.04
	12H	5.01	5.55	6.12	6.66	8.18	19.92	20.46	21.03	21.57	23.09
4H	2H	10.89	11.54	11.99	12.63	14.13	17.12	17.77	18.22	18.86	20.36
	3H	12.45	12.99	13.56	14.11	15.62	19.15	19.70	20.26	20.81	22.32
	4H	12.54	13.04	13.65	14.14	15.67	19.91	20.41	21.03	21.52	23.05
	6H	12.55	12.97	13.66	14.10	15.62	20.44	20.87	21.56	22.00	23.52
	8H	12.52	12.92	13.64	14.04	15.58	20.60	21.00	21.72	22.12	23.66
	12H	12.47	12.83	13.61	13.97	15.51	20.69	21.05	21.82	22.18	23.73
8H	4H	13.97	14.37	15.09	15.49	17.03	19.97	20.37	21.09	21.49	23.03
	6H	14.21	14.54	15.35	15.70	17.24	20.59	20.92	21.73	22.08	23.62
	8H	14.23	14.52	15.37	15.66	17.22	20.80	21.09	21.95	22.23	23.79
	12H	14.19	14.45	15.34	15.58	17.18	20.94	21.19	22.09	22.33	23.92
12H	4H	14.11	14.47	15.25	15.61	17.15	19.91	20.28	21.05	21.41	22.95
	6H	14.47	14.76	15.61	15.90	17.46	20.57	20.86	21.72	22.00	23.56
	8H	14.53	14.79	15.68	15.93	17.52	20.79	21.05	21.94	22.18	23.78