

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: P938390

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938390
REPORT IS A COMBINATION OF REPORTS P933638 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

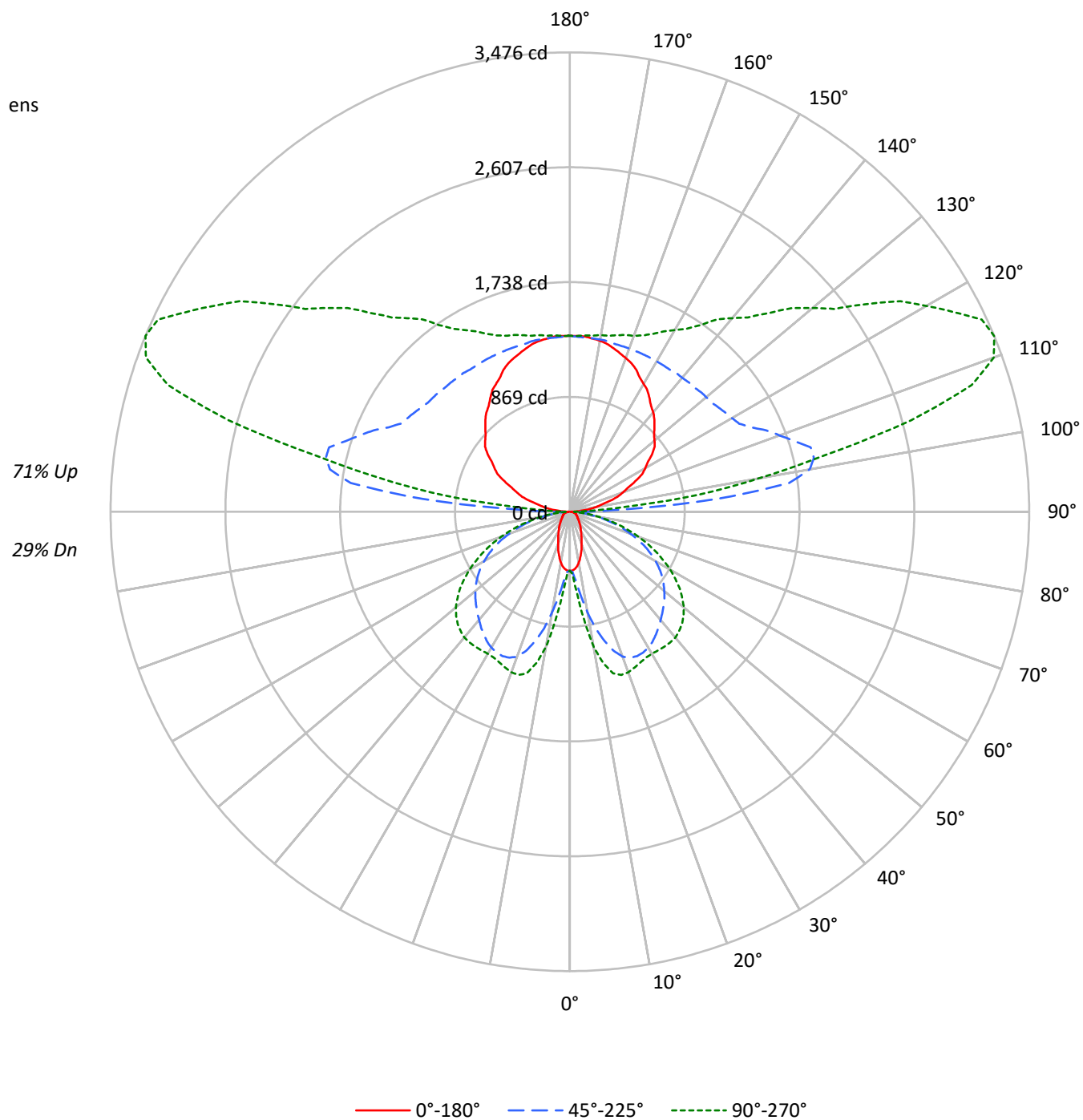
Lumens per Lamp: N/A
Luminaire Lumens: 12081.7 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 95.4
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: P938390

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-6-4000K

Luminous Intensity Polar Plot



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CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-6-4000K

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	50	30	10
RCR																				
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	30	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	25	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	21	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	17	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	15	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	13	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	11	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	10	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	9	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	8	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2756	2756	2756
5°	2691	3185	3704
10°	2440	4641	6141
15°	2073	6062	7416
20°	1687	7024	7558
25°	1407	7348	7405
30°	1186	7392	7390
35°	1048	7268	7582
40°	913	7105	7780
45°	826	6987	7810
50°	757	6880	7680
55°	725	6723	7339
60°	741	6425	6802
65°	769	5973	6063
70°	818	5205	5122
75°	902	4241	3998
80°	980	2938	2694
85°	853	1557	1379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7810 cd/sqm

TEST NUMBER: P938390

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-6-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.6	0.5
10°-20°	255.4	2.1
20°-30°	446.8	3.7
30°-40°	575.1	4.8
40°-50°	642.4	5.3
50°-60°	615.2	5.1
60°-70°	487.6	4.0
70°-80°	286.7	2.4
80°-90°	84.7	0.7
90°-100°	648.9	5.4
100°-110°	1706.1	14.1
110°-120°	1769.0	14.6
120°-130°	1418.9	11.7
130°-140°	1113.4	9.2
140°-150°	854.6	7.1
150°-160°	615.4	5.1
160°-170°	376.6	3.1
170°-180°	127.2	1.1
0°-30°	759.8	6.3
0°-40°	1335.0	11.0
0°-60°	2592.6	21.5
0°-90°	3451.6	28.6
90°-120°	4124.0	34.1
90°-150°	7510.9	62.2
90°-180°	8630.0	71.4
0°-180°	12081.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	434	466	524	593	614	40
15°	325	600	1011	1226	1265	90
25°	208	680	1205	1258	1259	96
35°	140	650	1135	1199	1246	88
45°	96	519	1003	1149	1200	74
55°	69	330	851	988	1016	63
65°	54	175	632	710	720	54
75°	40	107	347	381	382	42
85°	14	33	86	94	96	15
90°	9	25	68	34	34	8
95°	86	336	1118	576	392	95
105°	307	466	1886	2864	2671	326
115°	546	663	1511	3014	3440	539
125°	759	852	1374	2322	2739	674
135°	905	996	1331	1874	2126	700
145°	1050	1117	1314	1599	1724	658
155°	1186	1220	1314	1443	1485	545
165°	1280	1297	1314	1366	1383	361
175°	1331	1331	1323	1340	1340	126
180°	1331	1331	1331	1331	1331	

TEST NUMBER: P938390

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5
2.5°	445.5	445.5	448.4	449.8	452.7	454.1	457.0	459.8	468.4	469.9	472.7
5°	434.0	439.8	458.4	465.6	485.6	512.8	524.3	542.9	581.6	593.1	600.2
7.5°	416.9	429.8	475.6	487.0	537.2	608.8	638.9	679.0	740.6	770.7	795.0
10°	389.6	416.9	498.5	525.7	607.4	716.2	772.1	828.0	921.1	962.6	978.4
12.5°	359.6	404.0	522.9	560.1	677.6	836.6	903.9	965.5	1071.5	1127.5	1136.1
15°	325.2	385.3	545.8	600.2	752.1	936.9	1011.3	1087.4	1186.2	1226.3	1236.3
17.5°	295.1	371.0	567.3	624.6	809.4	1027.1	1103.1	1166.2	1246.4	1273.6	1280.8
20°	257.8	348.1	581.6	656.1	869.5	1093.1	1166.2	1214.9	1269.3	1286.5	1289.3
22.5°	230.6	323.7	590.2	667.5	909.6	1133.2	1194.8	1233.5	1270.7	1276.5	1277.9
25°	207.7	296.5	588.8	680.4	944.0	1157.6	1204.8	1233.5	1255.0	1257.8	1257.8
27.5°	186.2	266.4	583.0	683.3	969.8	1163.3	1200.5	1220.6	1230.6	1236.3	1236.3
30°	167.6	237.8	568.7	677.6	981.3	1157.6	1187.6	1197.7	1207.7	1216.3	1220.6
32.5°	153.3	210.6	547.2	666.1	982.7	1143.2	1164.7	1170.4	1184.8	1204.8	1212.0
35°	140.4	183.4	522.9	650.4	974.1	1120.3	1134.6	1140.4	1169.0	1199.1	1209.1
37.5°	127.5	163.3	491.3	623.1	961.2	1093.1	1103.1	1113.1	1157.6	1193.4	1204.8
40°	114.6	146.1	454.1	593.1	941.2	1060.0	1068.6	1084.4	1143.2	1184.8	1196.2
42.5°	104.6	131.8	414.0	561.5	915.4	1022.8	1035.7	1058.6	1126.0	1170.4	1183.3
45°	96.0	117.5	371.0	518.6	882.4	984.1	1002.8	1034.3	1106.0	1149.0	1160.4
47.5°	87.4	107.4	326.6	474.2	846.6	945.4	969.8	1005.6	1078.7	1120.3	1130.3
50°	80.2	97.4	282.2	426.9	807.9	903.9	932.6	969.8	1044.3	1083.0	1096.0
52.5°	74.5	88.8	240.7	379.6	763.5	860.9	893.9	932.6	1002.8	1040.0	1048.6
55°	68.8	81.7	204.8	329.5	717.7	815.1	850.9	888.2	956.9	988.4	994.2
57.5°	65.9	75.9	174.8	282.2	669.0	763.5	803.6	838.0	902.5	926.8	932.6
60°	61.6	71.6	151.8	242.1	616.0	714.8	749.2	783.6	838.0	858.1	862.4
62.5°	57.3	68.8	134.7	203.4	561.5	657.5	691.9	723.4	769.3	783.6	789.3
65°	54.4	65.9	121.8	174.8	505.7	597.4	631.7	658.9	696.2	710.5	713.4
67.5°	51.6	63.0	111.7	150.4	449.8	537.2	563.0	588.8	617.4	631.7	633.2
70°	47.3	60.2	103.1	133.2	392.5	468.4	489.9	517.1	540.1	547.2	551.5
72.5°	44.4	55.9	97.4	120.3	333.8	402.5	422.6	438.3	458.4	465.6	465.6
75°	40.1	50.1	91.7	107.4	273.6	329.5	346.7	362.4	378.2	381.0	376.7
77.5°	35.8	44.4	78.8	90.2	213.4	260.7	275.0	283.6	296.5	299.4	300.8
80°	30.1	38.7	61.6	70.2	154.7	192.0	202.0	209.1	220.6	220.6	223.5
82.5°	22.9	30.1	44.4	50.1	104.6	131.8	140.4	144.7	151.8	151.8	151.8
85°	14.3	18.6	28.6	32.9	63.0	80.2	86.0	87.4	93.1	94.5	94.5
87.5°	7.2	10.0	18.6	20.1	32.9	41.5	41.5	44.4	44.4	43.0	41.5
90°	9.0	16.1	23.2	25.0	39.3	58.4	67.9	60.4	45.3	34.0	34.0
92.5°	35.7	96.5	157.3	172.5	242.5	335.8	382.4	335.1	240.7	169.8	163.0
95°	85.8	196.9	308.2	336.0	596.6	944.0	1117.7	997.4	756.7	576.2	555.8
97.5°	148.3	246.4	344.5	369.0	803.5	1382.9	1672.6	1596.6	1444.4	1330.4	1291.4
100°	196.5	285.5	374.5	396.7	878.9	1521.8	1843.2	1848.8	1860.0	1868.3	1821.9
102.5°	237.7	320.7	403.7	424.4	913.5	1565.4	1891.5	1988.3	2182.1	2327.4	2287.7
105°	307.3	377.6	447.9	465.5	939.1	1570.4	1886.1	2103.3	2537.7	2863.6	2842.2
107.5°	378.8	444.4	509.9	526.2	943.7	1500.5	1778.9	2081.9	2687.8	3142.3	3147.5
110°	427.1	486.3	545.4	560.2	936.7	1438.5	1689.5	2028.2	2705.7	3213.8	3236.0



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CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-6-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	474.4	530.8	587.1	601.3	937.0	1384.5	1608.2	1954.9	2648.2	3168.2	3202.4
115°	545.9	597.9	650.0	663.0	945.5	1322.4	1510.8	1844.8	2512.7	3013.6	3061.0
117.5°	616.5	663.7	711.0	722.8	963.2	1283.6	1443.9	1745.3	2348.0	2800.1	2852.6
120°	657.6	702.1	746.6	757.7	977.4	1270.5	1417.0	1692.5	2243.2	2656.2	2707.2
122.5°	697.8	742.7	787.6	798.8	998.0	1263.7	1396.5	1644.5	2140.4	2512.4	2562.7
125°	759.4	800.3	841.3	851.5	1025.7	1258.0	1374.1	1584.8	2006.1	2322.1	2368.4
127.5°	809.5	850.7	892.1	902.4	1053.4	1254.7	1355.3	1536.2	1898.0	2169.3	2208.4
130°	836.3	880.8	925.3	936.4	1073.7	1256.8	1348.3	1509.3	1831.3	2072.8	2108.9
132.5°	864.0	908.5	953.0	964.1	1090.0	1258.0	1342.0	1486.1	1774.4	1990.6	2023.0
135°	905.1	945.5	986.1	996.3	1107.9	1256.8	1331.3	1452.0	1693.4	1874.5	1902.4
137.5°	947.1	987.2	1027.3	1037.3	1134.7	1264.5	1329.5	1431.5	1635.6	1788.7	1811.5
140°	981.9	1018.9	1055.8	1065.0	1151.1	1265.9	1323.2	1411.4	1587.7	1720.0	1741.3
142.5°	1008.7	1042.9	1077.0	1085.5	1164.8	1270.4	1323.2	1400.7	1555.5	1671.6	1690.0
145°	1049.8	1079.6	1109.4	1116.9	1182.7	1270.4	1314.3	1377.6	1504.3	1599.3	1613.2
147.5°	1090.9	1119.9	1148.9	1156.1	1208.8	1279.1	1314.3	1364.1	1463.7	1538.5	1550.1
150°	1117.7	1143.9	1170.1	1176.7	1222.5	1283.7	1314.3	1356.4	1440.5	1503.6	1513.0
152.5°	1145.4	1165.3	1185.2	1190.1	1231.5	1286.7	1314.3	1350.2	1422.1	1476.0	1483.0
155°	1186.5	1201.2	1215.9	1219.5	1251.1	1293.3	1314.3	1342.8	1400.0	1442.9	1447.6
157.5°	1216.9	1231.2	1245.5	1249.0	1270.8	1299.8	1314.3	1336.5	1381.0	1414.4	1417.6
160°	1237.5	1248.6	1259.6	1262.4	1279.7	1302.7	1314.3	1333.4	1371.5	1400.0	1401.9
162.5°	1258.0	1266.3	1274.6	1276.7	1289.2	1306.0	1314.3	1330.3	1362.5	1386.7	1388.5
165°	1280.4	1287.9	1295.4	1297.3	1302.9	1310.5	1314.3	1325.8	1348.8	1366.1	1368.0
167.5°	1300.9	1304.4	1308.1	1308.9	1313.7	1320.1	1323.2	1330.8	1345.9	1357.2	1357.9
170°	1314.3	1317.8	1321.4	1322.3	1322.6	1323.1	1323.2	1330.8	1345.9	1357.2	1357.2
172.5°	1321.4	1322.2	1323.1	1323.2	1323.2	1323.2	1323.2	1329.2	1341.1	1350.0	1349.3
175°	1331.3	1331.3	1331.3	1331.3	1328.6	1325.1	1323.2	1327.0	1334.5	1340.2	1340.2
177.5°	1331.3	1331.3	1331.3	1331.3	1329.2	1326.4	1325.0	1327.9	1333.9	1338.4	1337.7
180°	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	445.5	445.5
2.5°	475.6	472.7
5°	611.7	614.5
7.5°	823.7	822.3
10°	1024.2	1037.1
12.5°	1170.4	1173.3
15°	1259.3	1265.0
17.5°	1293.6	1295.1
20°	1295.1	1292.2
22.5°	1279.3	1276.5
25°	1260.7	1259.3
27.5°	1243.5	1244.9
30°	1236.3	1240.6
32.5°	1236.3	1243.5
35°	1239.2	1246.4
37.5°	1237.8	1246.4
40°	1232.0	1242.1
42.5°	1216.3	1223.5
45°	1191.9	1200.5
47.5°	1160.4	1166.2
50°	1120.3	1126.0
52.5°	1070.1	1071.5
55°	1009.9	1015.6
57.5°	945.4	946.9
60°	873.8	878.1
62.5°	797.9	797.9
65°	717.7	720.5
67.5°	634.6	641.8
70°	550.1	551.5
72.5°	467.0	467.0
75°	381.0	382.5
77.5°	299.4	299.4
80°	222.0	223.5
82.5°	153.3	156.1
85°	96.0	96.0
87.5°	44.4	40.1
90°	34.0	34.0
92.5°	136.0	109.0
95°	474.0	392.2
97.5°	1135.8	980.1
100°	1636.5	1451.0
102.5°	2128.9	1970.1
105°	2756.8	2671.4
107.5°	3168.1	3188.7
110°	3324.9	3413.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3339.0	3475.5
115°	3250.3	3439.8
117.5°	3062.7	3272.8
120°	2911.4	3115.5
122.5°	2764.1	2965.4
125°	2553.9	2739.3
127.5°	2364.9	2521.4
130°	2253.5	2398.0
132.5°	2152.4	2281.9
135°	2014.0	2125.5
137.5°	1902.9	1994.2
140°	1826.6	1912.0
142.5°	1763.5	1836.9
145°	1668.8	1724.3
147.5°	1596.1	1642.2
150°	1550.3	1587.7
152.5°	1511.2	1539.5
155°	1466.2	1484.9
157.5°	1430.8	1443.9
160°	1409.5	1417.0
162.5°	1395.5	1402.7
165°	1375.5	1383.0
167.5°	1361.2	1364.3
170°	1357.2	1357.2
172.5°	1346.6	1343.8
175°	1340.2	1340.2
177.5°	1334.4	1331.3
180°	1331.3	1331.3

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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	2.13	2.85	3.25	3.96	5.51	15.30	16.01	16.41	17.13	18.67
	3H	2.83	3.47	3.95	4.59	6.15	17.12	17.76	18.25	18.89	20.45
	4H	3.12	3.73	4.25	4.85	6.42	17.76	18.37	18.89	19.49	21.06
	6H	3.36	3.92	4.51	5.05	6.63	18.17	18.74	19.32	19.86	21.44
	8H	3.43	3.96	4.57	5.10	6.67	18.29	18.82	19.43	19.97	21.54
	12H	3.44	3.95	4.59	5.08	6.68	18.35	18.86	19.50	19.99	21.59
4H	2H	9.32	9.93	10.46	11.06	12.62	15.56	16.17	16.70	17.29	18.86
	3H	10.88	11.39	12.02	12.54	14.12	17.58	18.09	18.73	19.24	20.82
	4H	10.97	11.43	12.12	12.57	14.17	18.34	18.81	19.49	19.95	21.55
	6H	10.97	11.37	12.12	12.53	14.12	18.87	19.27	20.02	20.43	22.02
	8H	10.94	11.32	12.10	12.47	14.08	19.02	19.40	20.18	20.55	22.16
	12H	10.89	11.23	12.06	12.39	14.01	19.10	19.45	20.28	20.61	22.22
8H	4H	12.39	12.77	13.55	13.92	15.53	18.39	18.76	19.54	19.92	21.52
	6H	12.63	12.94	13.81	14.13	15.74	19.00	19.32	20.18	20.51	22.11
	8H	12.65	12.92	13.83	14.09	15.71	19.22	19.49	20.40	20.66	22.29
	12H	12.61	12.84	13.79	14.02	15.67	19.35	19.59	20.54	20.76	22.42
12H	4H	12.53	12.87	13.70	14.03	15.65	18.33	18.67	19.51	19.84	21.45
	6H	12.88	13.16	14.07	14.33	15.95	18.99	19.26	20.17	20.43	22.05
	8H	12.95	13.19	14.13	14.36	16.01	19.21	19.44	20.39	20.62	22.27

END OF REPORT