

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: P937695

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937695
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

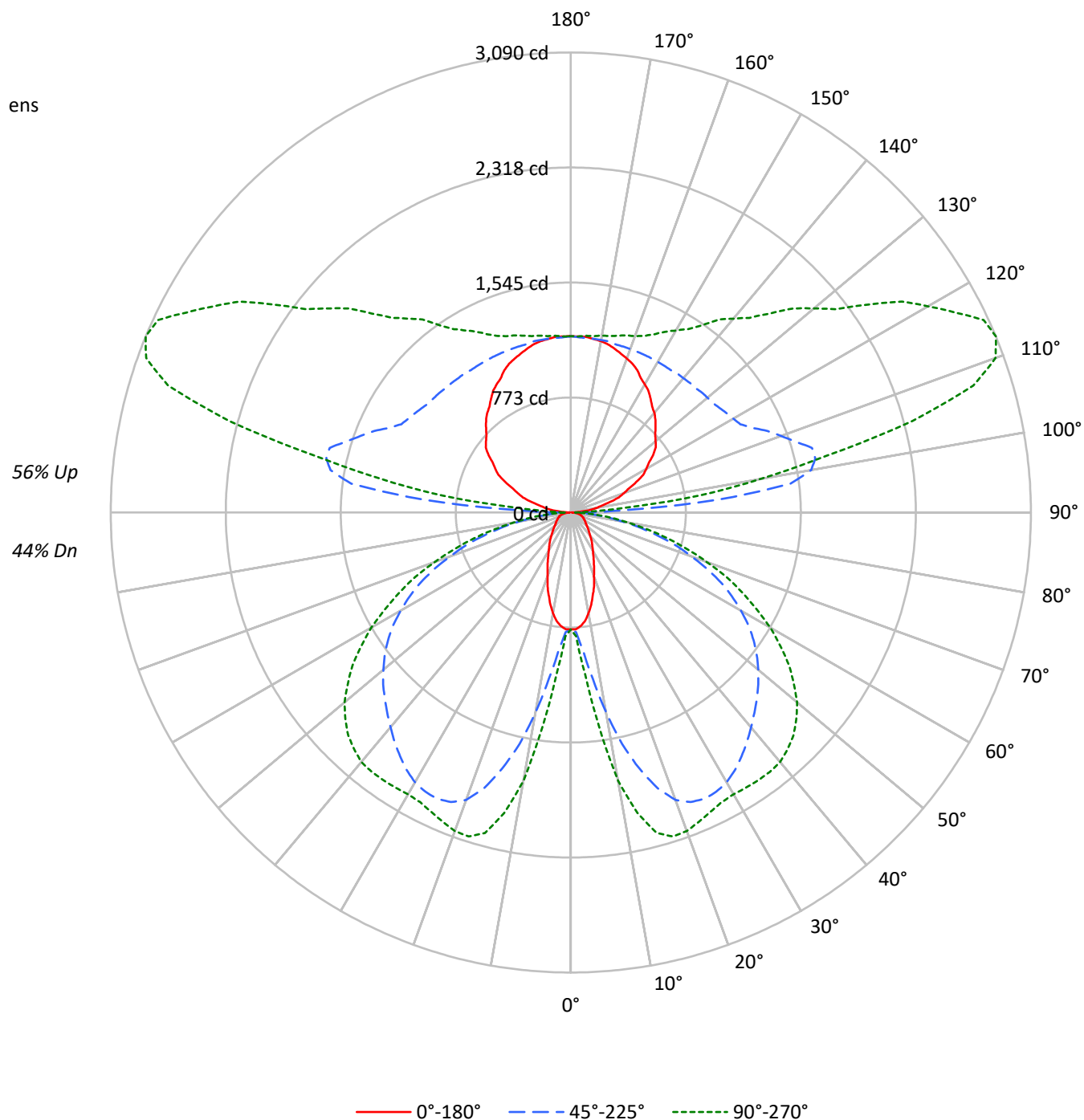
Lumens per Lamp: N/A
Luminaire Lumens: 13750.1 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 116
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

TEST NUMBER: P937695

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-8-4000K

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
RW	70	50	30	10	70	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
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3642	3642	3642
5°	3558	4209	4895
10°	3227	6135	8115
15°	2743	8015	9799
20°	2233	9289	9986
25°	1863	9720	9783
30°	1571	9782	9765
35°	1389	9619	10017
40°	1210	9408	10278
45°	1096	9254	10319
50°	1005	9115	10147
55°	962	8911	9698
60°	985	8519	8988
65°	1025	7925	8012
70°	1092	6911	6768
75°	1211	5634	5282
80°	1322	3907	3559
85°	1174	2074	1822

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10319 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.5	0.7
10°-20°	450.0	3.3
20°-30°	787.1	5.7
30°-40°	1013.2	7.4
40°-50°	1131.7	8.2
50°-60°	1083.9	7.9
60°-70°	859.0	6.2
70°-80°	505.1	3.7
80°-90°	144.9	1.1
90°-100°	577.0	4.2
100°-110°	1517.0	11.0
110°-120°	1573.0	11.4
120°-130°	1261.7	9.2
130°-140°	990.0	7.2
140°-150°	759.9	5.5
150°-160°	547.2	4.0
160°-170°	334.8	2.4
170°-180°	113.1	0.8
0°-30°	1338.6	9.7
0°-40°	2351.8	17.1
0°-60°	4567.4	33.2
0°-90°	6076.4	44.2
90°-120°	3667.0	26.7
90°-150°	6678.5	48.6
90°-180°	7674.0	55.8
0°-180°	13750.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	765	820	924	1045	1083	71
15°	573	1058	1782	2160	2228	159
25°	366	1199	2122	2216	2218	169
35°	247	1146	1999	2112	2196	154
45°	169	914	1767	2024	2115	131
55°	121	580	1499	1741	1789	110
65°	96	308	1113	1252	1270	95
75°	71	189	611	671	674	74
85°	25	58	152	167	169	27
90°	8	22	60	30	30	8
95°	76	299	994	512	349	85
105°	273	414	1677	2546	2375	290
115°	485	590	1343	2680	3059	479
125°	675	757	1222	2065	2436	600
135°	805	886	1184	1667	1890	623
145°	934	993	1169	1422	1533	585
155°	1055	1084	1169	1283	1320	485
165°	1138	1154	1169	1215	1230	321
175°	1184	1184	1177	1192	1192	112
180°	1184	1184	1184	1184	1184	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9
2.5°	784.9	784.9	790.0	792.5	797.5	800.0	805.1	810.1	825.3	827.8	832.9
5°	764.7	774.8	807.6	820.2	855.6	903.5	923.7	956.5	1024.6	1044.9	1057.5
7.5°	734.4	757.1	837.9	858.1	946.4	1072.6	1125.6	1196.2	1304.8	1357.8	1400.7
10°	686.5	734.4	878.3	926.3	1070.1	1261.8	1360.3	1458.8	1622.7	1696.0	1723.7
12.5°	633.5	711.7	921.2	986.8	1193.8	1473.9	1592.5	1701.0	1887.7	1986.2	2001.3
15°	572.9	678.9	961.6	1057.5	1325.0	1650.5	1781.7	1915.5	2089.6	2160.3	2178.0
17.5°	519.9	653.7	999.4	1100.4	1425.9	1809.5	1943.3	2054.3	2195.6	2243.6	2256.3
20°	454.3	613.3	1024.6	1155.8	1531.9	1925.7	2054.3	2140.2	2236.0	2266.3	2271.4
22.5°	406.4	570.3	1039.8	1176.1	1602.6	1996.3	2104.8	2172.9	2238.6	2248.6	2251.2
25°	366.0	522.4	1037.2	1198.8	1663.1	2039.2	2122.5	2172.9	2210.8	2215.9	2215.9
27.5°	328.0	469.4	1027.2	1203.9	1708.6	2049.3	2114.9	2150.3	2167.9	2178.0	2178.0
30°	295.3	419.0	1001.9	1193.8	1728.7	2039.2	2092.2	2109.9	2127.5	2142.6	2150.3
32.5°	270.1	371.0	964.1	1173.5	1731.3	2014.0	2051.8	2061.9	2087.2	2122.5	2135.1
35°	247.3	323.1	921.2	1145.8	1716.1	1973.6	1998.8	2008.9	2059.4	2112.4	2130.0
37.5°	224.6	287.7	865.6	1097.9	1693.4	1925.7	1943.3	1961.0	2039.2	2102.2	2122.5
40°	201.9	257.5	800.0	1044.9	1658.1	1867.6	1882.7	1910.5	2014.0	2087.2	2107.3
42.5°	184.2	232.2	729.3	989.3	1612.7	1802.0	1824.7	1865.0	1983.6	2061.9	2084.7
45°	169.1	206.9	653.7	913.6	1554.6	1733.8	1766.7	1822.1	1948.3	2024.0	2044.3
47.5°	153.9	189.3	575.4	835.3	1491.5	1665.7	1708.6	1771.7	1900.4	1973.6	1991.3
50°	141.3	171.6	497.2	752.1	1423.4	1592.5	1643.0	1708.6	1839.8	1908.0	1930.6
52.5°	131.2	156.4	424.0	668.8	1345.1	1516.7	1574.8	1643.0	1766.7	1832.3	1847.4
55°	121.1	143.8	360.9	580.4	1264.4	1436.0	1499.1	1564.8	1685.9	1741.3	1751.5
57.5°	116.1	133.8	307.9	497.2	1178.6	1345.1	1415.8	1476.4	1590.0	1632.9	1643.0
60°	108.5	126.2	267.5	426.5	1085.3	1259.4	1319.9	1380.5	1476.4	1511.8	1519.3
62.5°	100.9	121.1	237.2	358.4	989.3	1158.4	1219.0	1274.5	1355.2	1380.5	1390.6
65°	95.9	116.1	214.5	307.9	890.9	1052.4	1113.0	1160.9	1226.5	1251.8	1256.9
67.5°	90.8	111.1	196.8	265.0	792.5	946.4	991.9	1037.2	1087.7	1113.0	1115.5
70°	83.3	106.0	181.7	234.7	691.5	825.3	863.1	911.1	951.5	964.1	971.6
72.5°	78.2	98.5	171.6	212.0	588.0	709.2	744.5	772.3	807.6	820.2	820.2
75°	70.7	88.3	161.5	189.3	482.1	580.4	610.7	638.5	666.3	671.4	663.7
77.5°	63.1	78.2	138.8	159.0	376.1	459.4	484.6	499.7	522.4	527.4	530.0
80°	53.0	68.2	108.5	123.7	272.6	338.2	355.8	368.4	388.7	388.7	393.7
82.5°	40.4	53.0	78.2	88.3	184.2	232.2	247.3	254.9	267.5	267.5	267.5
85°	25.2	32.9	50.5	58.1	111.1	141.3	151.5	153.9	164.1	166.6	166.6
87.5°	12.6	17.7	32.9	35.3	58.1	73.2	73.2	78.2	78.2	75.7	73.2
90°	7.9	14.3	20.6	22.3	35.0	51.9	60.4	53.7	40.2	30.2	30.2
92.5°	31.8	85.9	139.9	153.4	215.5	298.5	340.0	298.0	214.0	151.0	145.0
95°	76.3	175.1	274.0	298.7	530.4	839.3	993.9	886.9	672.9	512.5	494.3
97.5°	131.9	219.1	306.4	328.1	714.5	1229.7	1487.2	1419.6	1284.4	1183.0	1148.4
100°	174.8	253.8	333.0	352.8	781.5	1353.1	1639.0	1643.9	1653.8	1661.2	1620.0
102.5°	211.3	285.1	358.9	377.3	812.1	1391.9	1681.9	1768.0	1940.4	2069.6	2034.2
105°	273.3	335.8	398.2	413.9	835.0	1396.4	1677.1	1870.2	2256.5	2546.2	2527.2
107.5°	336.8	395.1	453.3	468.0	839.3	1334.2	1581.8	1851.2	2390.0	2794.0	2798.6
110°	379.7	432.3	484.9	498.1	832.9	1279.1	1502.3	1803.5	2405.8	2857.6	2877.4

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	421.8	472.0	522.2	534.7	833.1	1231.1	1430.0	1738.3	2354.7	2817.2	2847.5
115°	485.4	531.6	578.0	589.5	840.8	1175.9	1343.4	1640.4	2234.3	2679.7	2721.8
117.5°	548.2	590.2	632.2	642.7	856.4	1141.3	1283.8	1551.8	2087.8	2489.8	2536.5
120°	584.7	624.3	663.8	673.7	869.1	1129.8	1260.0	1504.9	1994.6	2361.9	2407.3
122.5°	620.5	660.4	700.3	710.2	887.4	1123.6	1241.7	1462.2	1903.2	2234.0	2278.8
125°	675.3	711.7	748.1	757.1	912.0	1118.6	1221.8	1409.2	1783.8	2064.8	2106.1
127.5°	719.8	756.5	793.2	802.4	936.7	1115.7	1205.2	1366.0	1687.7	1928.9	1963.7
130°	743.6	783.1	822.6	832.6	954.6	1117.4	1198.8	1342.0	1628.4	1843.2	1875.2
132.5°	768.2	807.7	847.3	857.2	969.2	1118.6	1193.3	1321.4	1577.8	1770.0	1798.7
135°	804.8	840.8	876.9	885.9	985.2	1117.5	1183.7	1291.1	1505.7	1666.8	1691.6
137.5°	842.1	877.7	913.5	922.3	1009.0	1124.4	1182.1	1272.8	1454.4	1590.5	1610.8
140°	873.1	905.9	938.8	947.0	1023.5	1125.6	1176.6	1255.0	1411.8	1529.3	1548.3
142.5°	896.9	927.3	957.7	965.2	1035.7	1129.6	1176.6	1245.4	1383.1	1486.5	1502.8
145°	933.5	960.0	986.5	993.1	1051.6	1129.7	1168.6	1225.0	1337.6	1422.1	1434.4
147.5°	970.0	995.8	1021.6	1028.1	1074.9	1137.4	1168.6	1212.9	1301.6	1368.0	1378.3
150°	993.9	1017.2	1040.5	1046.3	1087.1	1141.4	1168.6	1206.1	1280.9	1337.1	1345.4
152.5°	1018.5	1036.2	1053.8	1058.2	1095.0	1144.1	1168.6	1200.6	1264.5	1312.5	1318.8
155°	1055.0	1068.1	1081.2	1084.4	1112.5	1149.9	1168.6	1194.0	1244.9	1283.0	1287.1
157.5°	1082.0	1094.7	1107.5	1110.7	1130.0	1155.7	1168.6	1188.4	1227.9	1257.6	1260.5
160°	1100.4	1110.3	1120.1	1122.6	1138.0	1158.4	1168.6	1185.6	1219.5	1244.9	1246.7
162.5°	1118.6	1126.0	1133.5	1135.3	1146.4	1161.2	1168.6	1183.0	1211.5	1233.0	1234.6
165°	1138.5	1145.1	1151.8	1153.5	1158.6	1165.3	1168.6	1178.9	1199.4	1214.8	1216.5
167.5°	1156.7	1159.8	1163.1	1163.9	1168.1	1173.7	1176.6	1183.2	1196.7	1206.7	1207.4
170°	1168.6	1171.8	1175.0	1175.8	1176.1	1176.4	1176.6	1183.2	1196.7	1206.7	1206.7
172.5°	1175.0	1175.7	1176.4	1176.6	1176.6	1176.6	1176.6	1181.9	1192.5	1200.4	1199.9
175°	1183.7	1183.7	1183.7	1183.7	1181.3	1178.2	1176.6	1179.9	1186.6	1191.6	1191.6
177.5°	1183.7	1183.7	1183.7	1183.7	1181.9	1179.4	1178.2	1180.9	1186.1	1190.1	1189.5
180°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	784.9	784.9
2.5°	837.9	832.9
5°	1077.6	1082.7
7.5°	1451.1	1448.6
10°	1804.5	1827.2
12.5°	2061.9	2067.0
15°	2218.4	2228.5
17.5°	2278.9	2281.5
20°	2281.5	2276.4
22.5°	2253.7	2248.6
25°	2220.9	2218.4
27.5°	2190.6	2193.2
30°	2178.0	2185.6
32.5°	2178.0	2190.6
35°	2183.0	2195.6
37.5°	2180.6	2195.6
40°	2170.4	2188.1
42.5°	2142.6	2155.2
45°	2099.8	2114.9
47.5°	2044.3	2054.3
50°	1973.6	1983.6
52.5°	1885.3	1887.7
55°	1779.3	1789.4
57.5°	1665.7	1668.2
60°	1539.5	1547.1
62.5°	1405.8	1405.8
65°	1264.4	1269.5
67.5°	1118.0	1130.6
70°	969.1	971.6
72.5°	822.7	822.7
75°	671.4	673.8
77.5°	527.4	527.4
80°	391.2	393.7
82.5°	270.1	275.1
85°	169.1	169.1
87.5°	78.2	70.7
90°	30.2	30.2
92.5°	121.0	96.9
95°	421.5	348.8
97.5°	1009.9	871.5
100°	1455.1	1290.2
102.5°	1893.0	1751.8
105°	2451.3	2375.4
107.5°	2817.1	2835.4
110°	2956.5	3035.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2968.9	3090.4
115°	2890.2	3058.7
117.5°	2723.3	2910.1
120°	2588.8	2770.3
122.5°	2457.8	2636.8
125°	2270.9	2435.8
127.5°	2102.8	2242.0
130°	2003.8	2132.3
132.5°	1913.9	2029.0
135°	1790.8	1890.0
137.5°	1692.0	1773.2
140°	1624.2	1700.1
142.5°	1568.1	1633.4
145°	1483.9	1533.3
147.5°	1419.2	1460.2
150°	1378.5	1411.8
152.5°	1343.8	1368.8
155°	1303.8	1320.4
157.5°	1272.2	1283.8
160°	1253.3	1260.0
162.5°	1240.9	1247.3
165°	1223.2	1229.8
167.5°	1210.3	1213.1
170°	1206.7	1206.7
172.5°	1197.4	1194.9
175°	1191.6	1191.6
177.5°	1186.6	1183.7
180°	1183.7	1183.7

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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	4.94	5.79	5.94	6.80	8.15	18.12	18.96	19.12	19.98	21.33
	3H	5.65	6.40	6.65	7.43	8.80	19.96	20.72	20.97	21.74	23.11
	4H	5.94	6.66	6.96	7.69	9.06	20.60	21.32	21.62	22.35	23.72
	6H	6.19	6.86	7.22	7.89	9.28	21.03	21.69	22.06	22.73	24.11
	8H	6.26	6.89	7.30	7.94	9.32	21.15	21.78	22.19	22.83	24.22
	12H	6.28	6.88	7.32	7.92	9.33	21.22	21.82	22.26	22.86	24.27
4H	2H	12.15	12.87	13.18	13.90	15.28	18.39	19.11	19.42	20.14	21.51
	3H	13.72	14.32	14.76	15.38	16.77	20.44	21.04	21.47	22.09	23.48
	4H	13.81	14.37	14.86	15.41	16.82	21.20	21.75	22.25	22.80	24.21
	6H	13.82	14.30	14.88	15.37	16.78	21.74	22.22	22.79	23.29	24.69
	8H	13.80	14.24	14.86	15.31	16.73	21.90	22.35	22.96	23.41	24.83
	12H	13.76	14.16	14.83	15.23	16.66	21.99	22.40	23.07	23.47	24.90
8H	4H	15.26	15.70	16.31	16.76	18.19	21.26	21.71	22.32	22.77	24.19
	6H	15.50	15.87	16.58	16.97	18.39	21.89	22.26	22.97	23.36	24.78
	8H	15.52	15.84	16.60	16.93	18.37	22.11	22.43	23.19	23.52	24.96
	12H	15.48	15.77	16.57	16.85	18.33	22.25	22.54	23.34	23.62	25.10
12H	4H	15.40	15.80	16.47	16.88	18.31	21.21	21.62	22.29	22.69	24.12
	6H	15.76	16.08	16.84	17.17	18.61	21.87	22.20	22.96	23.28	24.72
	8H	15.83	16.11	16.92	17.19	18.67	22.10	22.39	23.19	23.47	24.95

END OF REPORT