

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: P937676

Luminaire Tested: SQ4-FB-100U-100D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937676
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-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

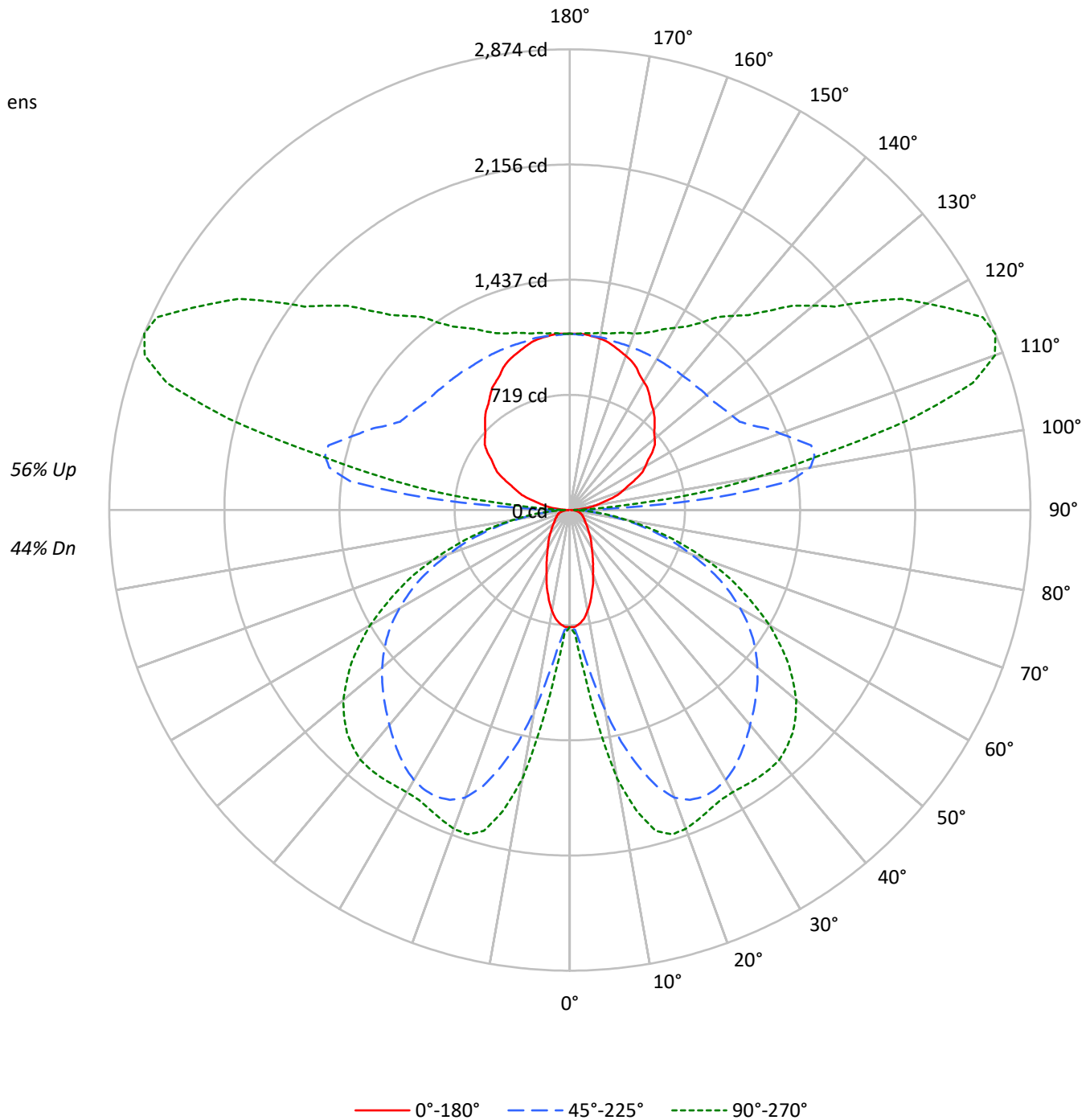
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12785.4 lumens
Efficiency: N/A
Efficacy: 110.2 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					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	50	30	10	50	30	10	50	30	10	0				
RCR																																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44																
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36																
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30																
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24																
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20																
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17																
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15																
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13																
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11																
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10																
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3386	3386	3386
5°	3308	3914	4551
10°	3001	5705	7546
15°	2550	7453	9111
20°	2076	8637	9286
25°	1732	9038	9097
30°	1461	9095	9080
35°	1291	8945	9314
40°	1125	8748	9557
45°	1019	8604	9595
50°	935	8475	9436
55°	895	8285	9018
60°	916	7922	8358
65°	954	7369	7450
70°	1015	6426	6294
75°	1125	5240	4912
80°	1230	3634	3310
85°	1090	1928	1695

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9595 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	0.7
10°-20°	418.4	3.3
20°-30°	731.9	5.7
30°-40°	942.1	7.4
40°-50°	1052.3	8.2
50°-60°	1007.9	7.9
60°-70°	798.7	6.2
70°-80°	469.7	3.7
80°-90°	134.7	1.1
90°-100°	536.6	4.2
100°-110°	1410.6	11.0
110°-120°	1462.6	11.4
120°-130°	1173.2	9.2
130°-140°	920.5	7.2
140°-150°	706.5	5.5
150°-160°	508.8	4.0
160°-170°	311.3	2.4
170°-180°	105.2	0.8
0°-30°	1244.7	9.7
0°-40°	2186.8	17.1
0°-60°	4247.0	33.2
0°-90°	5650.1	44.2
90°-120°	3409.7	26.7
90°-150°	6210.0	48.6
90°-180°	7135.0	55.8
0°-180°	12785.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	711	763	859	972	1007	66
15°	533	983	1657	2009	2072	148
25°	340	1115	1974	2060	2063	157
35°	230	1065	1859	1964	2042	144
45°	157	850	1643	1882	1967	122
55°	113	540	1394	1619	1664	103
65°	89	286	1035	1164	1180	88
75°	66	176	568	624	627	69
85°	23	54	141	155	157	25
90°	7	21	56	28	28	8
95°	71	278	924	476	324	79
105°	254	385	1559	2368	2209	269
115°	451	548	1249	2492	2844	446
125°	628	704	1136	1920	2265	557
135°	748	824	1101	1550	1757	579
145°	868	923	1087	1322	1426	544
155°	981	1008	1087	1193	1228	451
165°	1059	1073	1087	1130	1144	299
175°	1101	1101	1094	1108	1108	104
180°	1101	1101	1101	1101	1101	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8	729.8
2.5°	729.8	729.8	734.6	736.9	741.6	743.9	748.6	753.3	767.4	769.7	774.4
5°	711.0	720.4	751.0	762.7	795.6	840.1	858.9	889.4	952.7	971.6	983.3
7.5°	682.9	704.0	779.1	797.9	880.0	997.3	1046.6	1112.3	1213.3	1262.6	1302.4
10°	638.3	682.9	816.7	861.3	995.0	1173.3	1264.9	1356.4	1508.9	1577.0	1602.8
12.5°	589.0	661.7	856.6	917.6	1110.0	1370.5	1480.7	1581.7	1755.3	1846.9	1860.9
15°	532.7	631.3	894.1	983.3	1232.0	1534.7	1656.7	1781.2	1943.0	2008.7	2025.2
17.5°	483.4	607.8	929.3	1023.2	1325.9	1682.6	1807.0	1910.2	2041.6	2086.2	2098.0
20°	422.4	570.3	952.7	1074.7	1424.4	1790.6	1910.2	1990.0	2079.2	2107.3	2112.0
22.5°	377.8	530.3	966.9	1093.6	1490.2	1856.3	1957.2	2020.5	2081.6	2090.9	2093.3
25°	340.3	485.7	964.5	1114.7	1546.5	1896.1	1973.6	2020.5	2055.7	2060.4	2060.4
27.5°	305.0	436.5	955.1	1119.4	1588.7	1905.6	1966.6	1999.4	2015.8	2025.2	2025.2
30°	274.6	389.6	931.6	1110.0	1607.5	1896.1	1945.4	1961.9	1978.3	1992.3	1999.4
32.5°	251.1	345.0	896.4	1091.2	1609.9	1872.7	1907.9	1917.3	1940.7	1973.6	1985.3
35°	230.0	300.4	856.6	1065.4	1595.7	1835.1	1858.6	1868.0	1914.9	1964.2	1980.6
37.5°	208.9	267.6	804.9	1020.8	1574.6	1790.6	1807.0	1823.4	1896.1	1954.8	1973.6
40°	187.7	239.4	743.9	971.6	1541.7	1736.6	1750.6	1776.4	1872.7	1940.7	1959.5
42.5°	171.3	215.9	678.2	919.9	1499.6	1675.6	1696.7	1734.2	1844.5	1917.3	1938.4
45°	157.3	192.4	607.8	849.5	1445.6	1612.2	1642.7	1694.3	1811.6	1882.0	1900.9
47.5°	143.1	176.0	535.0	776.7	1386.9	1548.8	1588.7	1647.4	1767.0	1835.1	1851.6
50°	131.4	159.6	462.3	699.3	1323.6	1480.7	1527.7	1588.7	1710.7	1774.1	1795.2
52.5°	122.0	145.5	394.3	621.9	1250.7	1410.3	1464.3	1527.7	1642.7	1703.7	1717.7
55°	112.6	133.7	335.6	539.7	1175.7	1335.3	1393.9	1455.0	1567.6	1619.2	1628.6
57.5°	108.0	124.4	286.3	462.3	1095.9	1250.7	1316.5	1372.8	1478.4	1518.3	1527.7
60°	100.9	117.3	248.7	396.6	1009.1	1171.0	1227.3	1283.6	1372.8	1405.7	1412.7
62.5°	93.9	112.6	220.6	333.3	919.9	1077.1	1133.4	1185.1	1260.2	1283.6	1293.0
65°	89.2	108.0	199.4	286.3	828.4	978.6	1034.9	1079.5	1140.5	1164.0	1168.7
67.5°	84.4	103.3	183.0	246.4	736.9	880.0	922.3	964.5	1011.4	1034.9	1037.3
70°	77.4	98.6	169.0	218.3	643.0	767.4	802.6	847.2	884.7	896.4	903.5
72.5°	72.7	91.6	159.6	197.1	546.7	659.4	692.3	718.1	751.0	762.7	762.7
75°	65.7	82.1	150.2	176.0	448.3	539.7	567.9	593.7	619.6	624.3	617.2
77.5°	58.7	72.7	129.0	147.9	349.7	427.1	450.6	464.6	485.7	490.4	492.8
80°	49.3	63.4	100.9	115.0	253.4	314.4	330.9	342.6	361.4	361.4	366.1
82.5°	37.6	49.3	72.7	82.1	171.3	215.9	230.0	237.0	248.7	248.7	248.7
85°	23.4	30.5	47.0	54.0	103.3	131.4	140.8	143.1	152.6	154.9	154.9
87.5°	11.7	16.4	30.5	32.9	54.0	68.0	68.0	72.7	72.7	70.4	68.0
90°	7.4	13.3	19.2	20.7	32.5	48.2	56.1	49.9	37.4	28.1	28.1
92.5°	29.6	79.8	130.1	142.6	200.4	277.6	316.1	277.1	199.0	140.4	134.8
95°	71.0	162.9	254.8	277.8	493.2	780.5	924.1	824.7	625.7	476.5	459.6
97.5°	122.6	203.7	284.9	305.1	664.4	1143.4	1382.9	1320.0	1194.3	1100.0	1067.8
100°	162.5	236.0	309.6	328.0	726.7	1258.2	1524.0	1528.6	1537.7	1544.7	1506.3
102.5°	196.5	265.1	333.7	350.8	755.2	1294.3	1563.9	1644.0	1804.2	1924.4	1891.5
105°	254.1	312.2	370.3	384.9	776.4	1298.4	1559.4	1739.0	2098.2	2367.6	2349.9
107.5°	313.2	367.4	421.5	435.1	780.4	1240.6	1470.8	1721.3	2222.3	2598.0	2602.3
110°	353.1	402.0	450.9	463.2	774.4	1189.4	1396.9	1677.0	2237.0	2657.2	2675.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	392.2	438.8	485.6	497.2	774.7	1144.7	1329.7	1616.3	2189.5	2619.5	2647.7
115°	451.4	494.3	537.4	548.2	781.8	1093.4	1249.1	1525.3	2077.6	2491.7	2530.9
117.5°	509.7	548.8	587.9	597.6	796.4	1061.2	1193.7	1442.9	1941.3	2315.1	2358.5
120°	543.7	580.5	617.2	626.4	808.2	1050.5	1171.6	1399.3	1854.7	2196.2	2238.4
122.5°	576.9	614.1	651.2	660.4	825.1	1044.7	1154.6	1359.6	1769.7	2077.3	2118.9
125°	627.9	661.7	695.6	704.0	848.0	1040.1	1136.1	1310.3	1658.7	1919.9	1958.3
127.5°	669.3	703.4	737.6	746.1	871.0	1037.5	1120.7	1270.2	1569.3	1793.6	1825.9
130°	691.4	728.2	764.9	774.2	887.6	1039.0	1114.7	1247.8	1514.1	1713.8	1743.7
132.5°	714.3	751.1	787.8	797.1	901.2	1040.1	1109.6	1228.7	1467.1	1645.8	1672.5
135°	748.3	781.8	815.4	823.7	916.1	1039.1	1100.7	1200.5	1400.1	1549.8	1572.9
137.5°	783.0	816.2	849.4	857.6	938.2	1045.5	1099.2	1183.5	1352.3	1478.9	1497.8
140°	811.8	842.4	872.9	880.5	951.7	1046.6	1094.0	1166.9	1312.7	1422.0	1439.7
142.5°	834.0	862.2	890.5	897.5	963.0	1050.3	1094.0	1158.0	1286.1	1382.2	1397.4
145°	868.0	892.6	917.3	923.4	977.9	1050.4	1086.6	1139.0	1243.7	1322.3	1333.8
147.5°	901.9	925.9	949.9	955.9	999.5	1057.6	1086.6	1127.8	1210.3	1272.1	1281.6
150°	924.1	945.8	967.5	972.9	1010.8	1061.3	1086.6	1121.5	1191.1	1243.3	1251.0
152.5°	947.1	963.5	979.9	984.0	1018.2	1063.8	1086.6	1116.4	1175.8	1220.4	1226.2
155°	981.0	993.1	1005.3	1008.3	1034.4	1069.2	1086.6	1110.3	1157.6	1193.0	1196.8
157.5°	1006.1	1017.9	1029.8	1032.7	1050.7	1074.7	1086.6	1105.0	1141.8	1169.4	1172.1
160°	1023.2	1032.4	1041.5	1043.8	1058.1	1077.1	1086.6	1102.5	1134.0	1157.6	1159.2
162.5°	1040.1	1047.0	1054.0	1055.7	1066.0	1079.7	1086.6	1100.0	1126.5	1146.5	1148.0
165°	1058.6	1064.8	1071.0	1072.6	1077.3	1083.5	1086.6	1096.1	1115.2	1129.5	1131.1
167.5°	1075.5	1078.5	1081.5	1082.2	1086.1	1091.4	1094.0	1100.2	1112.8	1122.1	1122.7
170°	1086.6	1089.6	1092.6	1093.3	1093.6	1093.8	1094.0	1100.2	1112.8	1122.1	1122.1
172.5°	1092.6	1093.2	1093.8	1094.0	1094.0	1094.0	1094.0	1099.0	1108.8	1116.2	1115.7
175°	1100.7	1100.7	1100.7	1100.7	1098.5	1095.5	1094.0	1097.1	1103.3	1108.0	1108.0
177.5°	1100.7	1100.7	1100.7	1100.7	1099.0	1096.7	1095.5	1098.0	1102.9	1106.6	1106.0
180°	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	729.8	729.8
2.5°	779.1	774.4
5°	1002.0	1006.7
7.5°	1349.3	1347.0
10°	1677.9	1699.0
12.5°	1917.3	1922.0
15°	2062.7	2072.1
17.5°	2119.0	2121.4
20°	2121.4	2116.7
22.5°	2095.6	2090.9
25°	2065.1	2062.7
27.5°	2036.9	2039.3
30°	2025.2	2032.3
32.5°	2025.2	2036.9
35°	2029.9	2041.6
37.5°	2027.6	2041.6
40°	2018.2	2034.6
42.5°	1992.3	2004.0
45°	1952.4	1966.6
47.5°	1900.9	1910.2
50°	1835.1	1844.5
52.5°	1753.0	1755.3
55°	1654.4	1663.8
57.5°	1548.8	1551.2
60°	1431.5	1438.6
62.5°	1307.1	1307.1
65°	1175.7	1180.4
67.5°	1039.6	1051.3
70°	901.1	903.5
72.5°	765.0	765.0
75°	624.3	626.6
77.5°	490.4	490.4
80°	363.7	366.1
82.5°	251.1	255.8
85°	157.3	157.3
87.5°	72.7	65.7
90°	28.1	28.1
92.5°	112.5	90.1
95°	392.0	324.3
97.5°	939.1	810.4
100°	1353.0	1199.7
102.5°	1760.2	1628.9
105°	2279.3	2208.7
107.5°	2619.4	2636.5
110°	2749.1	2822.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2760.6	2873.6
115°	2687.4	2844.1
117.5°	2532.2	2705.9
120°	2407.2	2575.9
122.5°	2285.4	2451.8
125°	2111.6	2264.9
127.5°	1955.3	2084.7
130°	1863.2	1982.7
132.5°	1779.6	1886.6
135°	1665.2	1757.4
137.5°	1573.3	1648.8
140°	1510.2	1580.8
142.5°	1458.1	1518.8
145°	1379.8	1425.7
147.5°	1319.7	1357.8
150°	1281.8	1312.7
152.5°	1249.5	1272.8
155°	1212.3	1227.7
157.5°	1182.9	1193.7
160°	1165.4	1171.6
162.5°	1153.9	1159.8
165°	1137.4	1143.6
167.5°	1125.4	1128.0
170°	1122.1	1122.1
172.5°	1113.4	1111.1
175°	1108.0	1108.0
177.5°	1103.3	1100.7
180°	1100.7	1100.7



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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	4.69	5.53	5.69	6.55	7.90	17.87	18.71	18.86	19.73	21.07
	3H	5.39	6.15	6.40	7.17	8.54	19.71	20.46	20.71	21.49	22.86
	4H	5.69	6.41	6.71	7.44	8.81	20.35	21.07	21.37	22.09	23.47
	6H	5.94	6.60	6.97	7.63	9.02	20.78	21.44	21.81	22.47	23.86
	8H	6.01	6.64	7.04	7.69	9.07	20.90	21.53	21.94	22.58	23.96
	12H	6.02	6.63	7.07	7.67	9.08	20.97	21.57	22.01	22.61	24.02
4H	2H	11.90	12.62	12.93	13.65	15.02	18.14	18.86	19.17	19.88	21.26
	3H	13.47	14.07	14.50	15.12	16.51	20.18	20.79	21.22	21.84	23.23
	4H	13.56	14.11	14.61	15.16	16.57	20.95	21.50	21.99	22.55	23.96
	6H	13.57	14.05	14.62	15.12	16.52	21.49	21.96	22.54	23.03	24.44
	8H	13.55	13.99	14.60	15.05	16.48	21.65	22.09	22.70	23.16	24.58
	12H	13.50	13.91	14.58	14.98	16.41	21.74	22.14	22.82	23.22	24.65
8H	4H	15.00	15.45	16.06	16.51	17.94	21.01	21.45	22.06	22.51	23.94
	6H	15.25	15.61	16.32	16.72	18.14	21.64	22.00	22.72	23.11	24.53
	8H	15.26	15.59	16.35	16.67	18.11	21.86	22.18	22.94	23.27	24.71
	12H	15.23	15.52	16.32	16.60	18.08	22.00	22.29	23.09	23.37	24.85
12H	4H	15.15	15.55	16.22	16.63	18.06	20.96	21.36	22.03	22.44	23.87
	6H	15.50	15.83	16.59	16.92	18.36	21.62	21.94	22.71	23.03	24.47
	8H	15.57	15.86	16.66	16.94	18.42	21.85	22.13	22.94	23.22	24.70