

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: P937309

Luminaire Tested: SQ4-FB-075U-125D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937309
REPORT IS A COMBINATION OF REPORTS P933496 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-075U-125D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

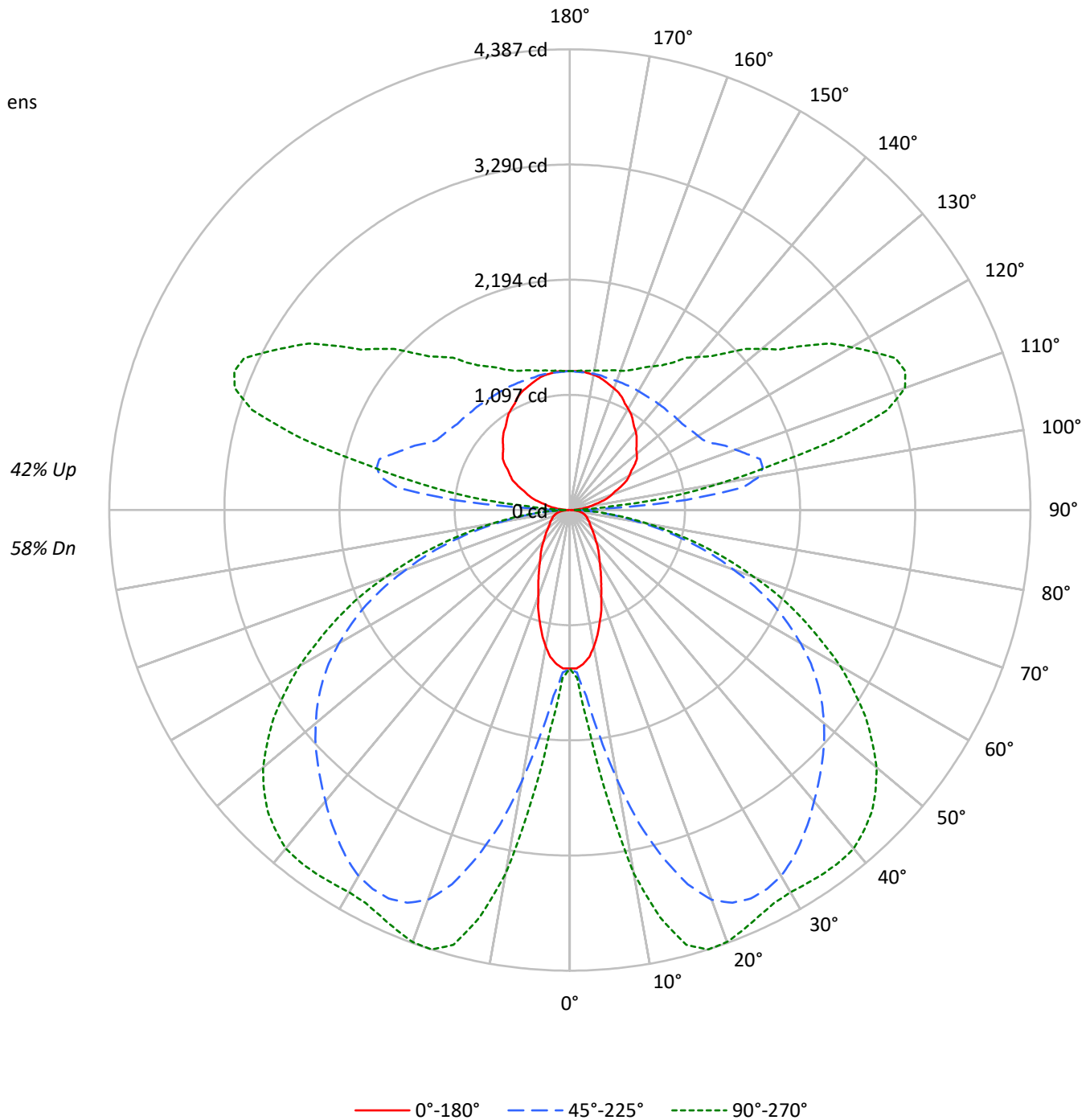
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20269.1 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 186
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				
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	109	109	109	109	101	101	101	101	88	88	88	75	75	75	63	63	63	58			58
1	99	94	90	86	92	88	84	81	76	73	71	65	63	61	55	53	52	47			47
2	89	82	75	69	83	76	70	65	66	61	57	56	53	50	47	45	43	38			38
3	81	71	63	57	75	66	59	54	57	52	47	49	45	41	41	38	36	32			32
4	74	62	54	48	68	58	51	45	50	45	40	43	39	35	36	33	30	27			27
5	68	55	47	40	63	52	44	38	45	39	34	38	34	30	33	29	26	23			23
6	62	49	41	35	57	46	38	33	40	34	29	34	29	26	29	25	22	19			19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19	17			17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15			15
9	49	36	28	23	46	34	27	22	30	24	20	26	21	17	22	18	15	13			13
10	46	33	26	21	43	31	24	20	27	22	18	24	19	16	20	16	14	12			12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4669	4669	4669
5°	4562	5397	6275
10°	4140	7869	10404
15°	3520	10284	12562
20°	2867	11920	12803
25°	2392	12477	12543
30°	2019	12559	12519
35°	1785	12354	12843
40°	1557	12086	13177
45°	1410	11891	13229
50°	1295	11717	13010
55°	1242	11459	12433
60°	1273	10961	11523
65°	1326	10201	10271
70°	1415	8902	8677
75°	1574	7265	6772
80°	1733	5045	4563
85°	1575	2681	2335

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.2	1.0
10°-20°	865.3	4.3
20°-30°	1513.6	7.5
30°-40°	1948.4	9.6
40°-50°	2176.4	10.7
50°-60°	2084.4	10.3
60°-70°	1651.9	8.1
70°-80°	971.4	4.8
80°-90°	274.9	1.4
90°-100°	645.7	3.2
100°-110°	1697.7	8.4
110°-120°	1760.3	8.7
120°-130°	1411.9	7.0
130°-140°	1107.9	5.5
140°-150°	850.3	4.2
150°-160°	612.4	3.0
160°-170°	374.7	1.8
170°-180°	126.6	0.6
0°-30°	2574.2	12.7
0°-40°	4522.6	22.3
0°-60°	8783.4	43.3
0°-90°	11681.6	57.6
90°-120°	4103.6	20.2
90°-150°	7473.8	36.9
90°-180°	8587.0	42.4
0°-180°	20269.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1470	1577	1776	2009	2082	136
15°	1102	2034	3426	4154	4286	307
25°	704	2305	4082	4261	4266	324
35°	476	2203	3844	4062	4222	297
45°	325	1757	3397	3892	4067	252
55°	233	1116	2883	3349	3441	212
65°	184	592	2140	2407	2441	183
75°	136	364	1174	1291	1296	142
85°	49	112	291	320	325	51
90°	9	25	68	34	34	11
95°	85	334	1112	573	390	95
105°	306	463	1877	2850	2658	324
115°	543	660	1503	2999	3423	537
125°	756	847	1367	2311	2726	671
135°	901	991	1325	1865	2115	697
145°	1045	1111	1308	1592	1716	654
155°	1181	1214	1308	1436	1478	542
165°	1274	1291	1308	1359	1376	360
175°	1325	1325	1317	1334	1334	126
180°	1325	1325	1325	1325	1325	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4
2.5°	1509.4	1509.4	1519.1	1524.0	1533.6	1538.5	1548.2	1557.9	1587.1	1591.9	1601.6
5°	1470.5	1489.9	1553.0	1577.3	1645.3	1737.5	1776.3	1839.4	1970.4	2009.3	2033.5
7.5°	1412.3	1456.0	1611.3	1650.2	1820.0	2062.7	2164.6	2300.5	2509.2	2611.1	2693.6
10°	1320.1	1412.3	1689.0	1781.1	2057.8	2426.6	2615.9	2805.2	3120.7	3261.4	3314.8
12.5°	1218.2	1368.6	1771.5	1897.7	2295.6	2834.3	3062.5	3271.1	3630.3	3819.6	3848.7
15°	1101.7	1305.5	1849.1	2033.5	2548.0	3174.1	3426.4	3683.7	4018.5	4154.5	4188.4
17.5°	999.8	1257.0	1921.9	2116.0	2742.1	3479.8	3737.1	3950.6	4222.4	4314.6	4338.9
20°	873.6	1179.3	1970.4	2222.8	2946.0	3703.1	3950.6	4115.6	4300.1	4358.3	4368.0
22.5°	781.3	1096.8	1999.6	2261.6	3081.9	3839.0	4047.7	4178.7	4304.9	4324.3	4329.2
25°	703.7	1004.7	1994.7	2305.3	3198.3	3921.5	4081.6	4178.7	4251.5	4261.2	4261.2
27.5°	631.0	902.8	1975.3	2315.0	3285.7	3940.9	4067.1	4135.0	4169.0	4188.4	4188.4
30°	567.9	805.6	1926.7	2295.6	3324.5	3921.5	4023.4	4057.4	4091.4	4120.5	4135.0
32.5°	519.3	713.5	1854.0	2256.8	3329.4	3872.9	3945.8	3965.2	4013.7	4081.6	4105.9
35°	475.6	621.2	1771.5	2203.4	3300.3	3795.3	3843.8	3863.3	3960.3	4062.2	4096.2
37.5°	431.9	553.2	1664.7	2111.2	3256.6	3703.1	3737.1	3771.0	3921.5	4042.8	4081.6
40°	388.2	495.0	1538.5	2009.3	3188.6	3591.5	3620.6	3674.0	3872.9	4013.7	4052.5
42.5°	354.3	446.5	1402.6	1902.5	3101.3	3465.3	3509.0	3586.6	3814.7	3965.2	4008.9
45°	325.1	398.0	1257.0	1756.9	2989.6	3334.2	3397.3	3504.1	3746.8	3892.4	3931.2
47.5°	296.1	364.0	1106.6	1606.5	2868.3	3203.2	3285.7	3407.0	3654.6	3795.3	3829.3
50°	271.8	330.0	956.1	1446.3	2737.3	3062.5	3159.5	3285.7	3538.1	3669.1	3712.8
52.5°	252.4	300.9	815.4	1286.1	2586.8	2916.9	3028.5	3159.5	3397.3	3523.5	3552.6
55°	233.0	276.7	694.1	1116.2	2431.5	2761.5	2882.9	3009.1	3242.0	3348.8	3368.2
57.5°	223.2	257.3	592.1	956.1	2266.5	2586.8	2722.7	2839.2	3057.6	3140.1	3159.5
60°	208.7	242.6	514.4	820.2	2086.9	2421.8	2538.3	2654.8	2839.2	2907.1	2921.7
62.5°	194.2	233.0	456.2	689.2	1902.5	2227.7	2344.1	2450.9	2606.2	2654.8	2674.2
65°	184.4	223.2	412.5	592.1	1713.2	2023.9	2140.3	2232.5	2358.7	2407.2	2417.0
67.5°	174.8	213.6	378.6	509.6	1524.0	1820.0	1907.3	1994.7	2091.8	2140.3	2145.2
70°	160.1	203.8	349.4	451.3	1329.8	1587.1	1659.8	1752.1	1829.7	1854.0	1868.5
72.5°	150.5	189.3	330.0	407.6	1130.9	1363.8	1431.7	1485.1	1553.0	1577.3	1577.3
75°	135.8	169.9	310.6	364.0	926.9	1116.2	1174.5	1227.9	1281.2	1291.0	1276.5
77.5°	121.3	150.5	266.9	305.7	723.1	883.3	931.8	961.0	1004.7	1014.3	1019.2
80°	101.9	131.1	208.7	237.9	524.2	650.4	684.3	708.6	747.4	747.4	757.2
82.5°	77.6	101.9	150.5	169.9	354.3	446.5	475.6	490.1	514.4	514.4	514.4
85°	48.6	63.1	97.0	111.7	213.6	271.8	291.2	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.7	140.7	150.5	150.5	145.6	140.7
90°	8.9	16.0	23.0	24.9	39.1	58.1	67.6	60.0	45.0	33.7	33.7
92.5°	35.6	96.0	156.5	171.6	241.2	334.0	380.5	333.5	239.5	168.9	162.2
95°	85.4	196.0	306.7	334.3	593.6	939.4	1112.2	992.5	753.0	573.4	553.0
97.5°	147.6	245.2	342.8	367.2	799.6	1376.1	1664.3	1588.6	1437.3	1323.8	1285.1
100°	195.6	284.1	372.6	394.7	874.5	1514.2	1834.1	1839.6	1850.7	1859.0	1812.9
102.5°	236.5	319.1	401.6	422.3	908.9	1557.7	1882.2	1978.5	2171.4	2316.0	2276.5
105°	305.8	375.8	445.7	463.2	934.4	1562.7	1876.8	2093.0	2525.3	2849.5	2828.2
107.5°	377.0	442.2	507.3	523.7	939.2	1493.2	1770.1	2071.7	2674.6	3126.8	3132.0
110°	424.9	483.8	542.7	557.4	932.0	1431.5	1681.2	2018.3	2692.4	3197.9	3220.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	472.1	528.2	584.3	598.4	932.4	1377.7	1600.3	1945.3	2635.2	3152.6	3186.5
115°	543.2	594.9	646.7	659.6	940.9	1315.9	1503.4	1835.7	2500.3	2998.8	3045.9
117.5°	613.5	660.5	707.4	719.2	958.4	1277.2	1436.7	1736.6	2336.4	2786.3	2838.6
120°	654.4	698.6	742.8	753.9	972.6	1264.2	1410.0	1684.0	2232.1	2643.1	2693.9
122.5°	694.3	739.0	783.6	794.8	993.1	1257.4	1389.5	1636.3	2129.9	2500.0	2550.1
125°	755.7	796.4	837.2	847.3	1020.6	1251.8	1367.4	1577.0	1996.2	2310.7	2356.8
127.5°	805.5	846.6	887.7	898.0	1048.3	1248.5	1348.7	1528.7	1888.7	2158.6	2197.6
130°	832.2	876.5	920.6	931.7	1068.3	1250.4	1341.6	1501.8	1822.2	2062.6	2098.5
132.5°	859.7	904.0	948.2	959.3	1084.6	1251.8	1335.3	1478.7	1765.6	1980.8	2013.0
135°	900.6	940.9	981.2	991.3	1102.5	1250.6	1324.7	1444.8	1685.0	1865.3	1893.0
137.5°	942.4	982.3	1022.3	1032.2	1129.1	1258.3	1322.9	1424.4	1627.6	1779.9	1802.6
140°	977.0	1013.7	1050.5	1059.7	1145.4	1259.6	1316.7	1404.5	1579.9	1711.4	1732.7
142.5°	1003.7	1037.7	1071.7	1080.2	1159.1	1264.1	1316.7	1393.8	1547.9	1663.4	1681.7
145°	1044.6	1074.3	1103.9	1111.4	1176.8	1264.1	1307.8	1370.8	1496.9	1591.5	1605.3
147.5°	1085.5	1114.4	1143.3	1150.5	1202.9	1272.8	1307.8	1357.4	1456.6	1530.9	1542.4
150°	1112.2	1138.3	1164.4	1170.9	1216.5	1277.4	1307.8	1349.7	1433.4	1496.2	1505.5
152.5°	1139.7	1159.5	1179.2	1184.2	1225.4	1280.4	1307.8	1343.6	1415.1	1468.7	1475.7
155°	1180.7	1195.3	1209.9	1213.5	1245.0	1286.9	1307.8	1336.3	1393.2	1435.8	1440.5
157.5°	1210.9	1225.1	1239.4	1242.9	1264.5	1293.4	1307.8	1329.9	1374.2	1407.3	1410.6
160°	1231.3	1242.4	1253.5	1256.3	1273.5	1296.3	1307.8	1326.7	1364.7	1393.2	1395.1
162.5°	1251.8	1260.1	1268.3	1270.4	1282.9	1299.5	1307.8	1323.8	1355.8	1379.8	1381.6
165°	1274.1	1281.5	1289.0	1290.9	1296.5	1304.1	1307.8	1319.3	1342.1	1359.3	1361.2
167.5°	1294.4	1298.0	1301.6	1302.5	1307.2	1313.5	1316.7	1324.2	1339.2	1350.4	1351.2
170°	1307.8	1311.3	1315.0	1315.8	1316.1	1316.5	1316.7	1324.2	1339.2	1350.4	1350.4
172.5°	1314.9	1315.6	1316.5	1316.7	1316.7	1316.7	1316.7	1322.6	1334.5	1343.4	1342.7
175°	1324.7	1324.7	1324.7	1324.7	1322.1	1318.5	1316.7	1320.4	1328.0	1333.6	1333.6
177.5°	1324.7	1324.7	1324.7	1324.7	1322.6	1319.9	1318.5	1321.5	1327.4	1331.8	1331.0
180°	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1509.4	1509.4
2.5°	1611.3	1601.6
5°	2072.4	2082.1
7.5°	2790.7	2785.8
10°	3470.1	3513.8
12.5°	3965.2	3974.9
15°	4266.1	4285.5
17.5°	4382.6	4387.4
20°	4387.4	4377.7
22.5°	4334.0	4324.3
25°	4270.9	4266.1
27.5°	4212.7	4217.6
30°	4188.4	4203.0
32.5°	4188.4	4212.7
35°	4198.1	4222.4
37.5°	4193.3	4222.4
40°	4173.9	4207.8
42.5°	4120.5	4144.7
45°	4038.0	4067.1
47.5°	3931.2	3950.6
50°	3795.3	3814.7
52.5°	3625.4	3630.3
55°	3421.6	3441.0
57.5°	3203.2	3208.0
60°	2960.5	2975.1
62.5°	2703.3	2703.3
65°	2431.5	2441.2
67.5°	2150.0	2174.3
70°	1863.7	1868.5
72.5°	1582.2	1582.2
75°	1291.0	1295.9
77.5°	1014.3	1014.3
80°	752.3	757.2
82.5°	519.3	529.1
85°	325.1	325.1
87.5°	150.5	135.8
90°	33.7	33.7
92.5°	135.4	108.5
95°	471.7	390.3
97.5°	1130.2	975.3
100°	1628.4	1443.8
102.5°	2118.4	1960.4
105°	2743.2	2658.3
107.5°	3152.5	3173.1
110°	3308.5	3397.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3322.5	3458.4
115°	3234.3	3422.9
117.5°	3047.5	3256.6
120°	2897.1	3100.1
122.5°	2750.4	2950.8
125°	2541.3	2725.8
127.5°	2353.3	2508.9
130°	2242.4	2386.3
132.5°	2141.8	2270.7
135°	2004.1	2115.1
137.5°	1893.5	1984.4
140°	1817.6	1902.5
142.5°	1754.8	1827.9
145°	1660.6	1715.8
147.5°	1588.2	1634.1
150°	1542.7	1579.9
152.5°	1503.8	1531.8
155°	1459.0	1477.6
157.5°	1423.7	1436.7
160°	1402.5	1410.0
162.5°	1388.7	1395.9
165°	1368.7	1376.3
167.5°	1354.5	1357.6
170°	1350.4	1350.4
172.5°	1339.9	1337.2
175°	1333.6	1333.6
177.5°	1327.9	1324.7
180°	1324.7	1324.7



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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	7.03	8.01	7.91	8.92	10.07	20.22	21.20	21.10	22.11	23.26
	3H	7.74	8.63	8.64	9.54	10.72	22.08	22.96	22.97	23.87	25.05
	4H	8.05	8.88	8.96	9.81	10.99	22.73	23.57	23.64	24.49	25.68
	6H	8.30	9.08	9.22	10.00	11.21	23.17	23.94	24.09	24.87	26.07
	8H	8.38	9.11	9.30	10.06	11.26	23.30	24.03	24.23	24.98	26.18
	12H	8.40	9.10	9.33	10.04	11.27	23.37	24.07	24.31	25.01	26.24
4H	2H	14.27	15.10	15.18	16.03	17.21	20.51	21.35	21.42	22.27	23.46
	3H	15.85	16.55	16.77	17.50	18.70	22.57	23.27	23.50	24.22	25.43
	4H	15.95	16.59	16.88	17.53	18.76	23.35	23.99	24.28	24.94	26.16
	6H	15.96	16.52	16.91	17.49	18.72	23.90	24.45	24.85	25.42	26.65
	8H	15.94	16.46	16.89	17.43	18.67	24.07	24.58	25.02	25.55	26.79
	12H	15.91	16.37	16.88	17.36	18.61	24.17	24.64	25.14	25.62	26.87
8H	4H	17.40	17.92	18.36	18.89	20.13	23.42	23.94	24.37	24.90	26.15
	6H	17.65	18.08	18.63	19.09	20.33	24.06	24.49	25.04	25.49	26.74
	8H	17.67	18.05	18.66	19.05	20.31	24.28	24.66	25.27	25.66	26.92
	12H	17.65	17.98	18.64	18.97	20.28	24.44	24.77	25.43	25.76	27.07
12H	4H	17.56	18.02	18.53	19.01	20.26	23.38	23.85	24.35	24.83	26.08
	6H	17.91	18.30	18.90	19.29	20.55	24.04	24.42	25.03	25.42	26.68
	8H	17.99	18.32	18.98	19.31	20.62	24.28	24.62	25.27	25.61	26.91