

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: P937787

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937787
REPORT IS A COMBINATION OF REPORTS P933576 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

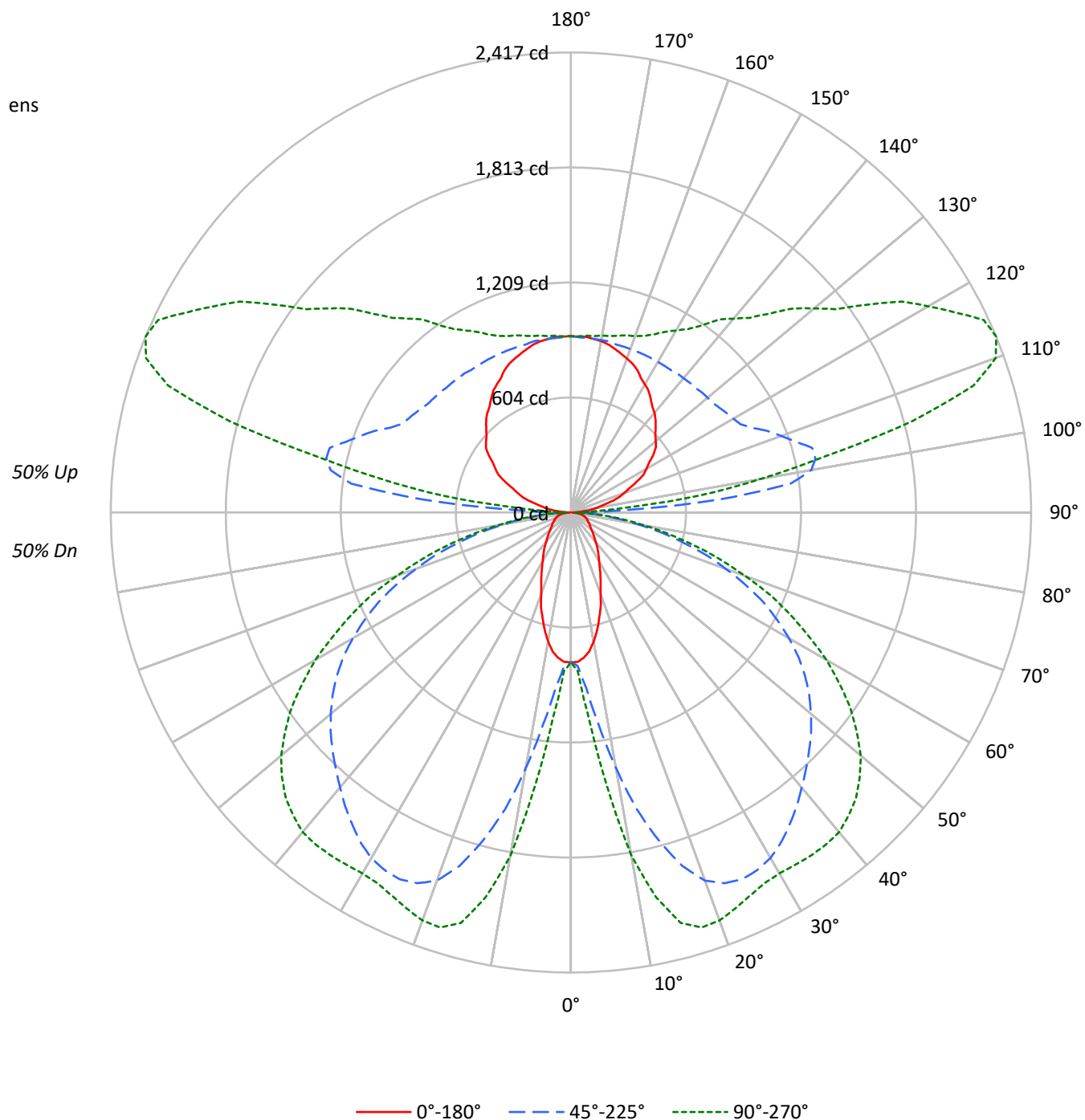
Lumens per Lamp: N/A
Luminaire Lumens: 12088.5 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 103.2
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: P937787

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P937787

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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	50	30	10
RCR																				
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	47	47	47
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	38	38	38
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	32	32	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	27	27	27
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	23	23	23
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	20	20	20
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	17	17	17
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	15	15	15
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	14	14	14
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	12	12	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4864	4864	4864
5°	4750	5620	6538
10°	4307	8191	10839
15°	3659	10698	13088
20°	2978	12394	13338
25°	2483	12968	13067
30°	2093	13046	13043
35°	1850	12826	13380
40°	1611	12541	13728
45°	1458	12330	13782
50°	1335	12141	13554
55°	1278	11866	12953
60°	1307	11339	12005
65°	1358	10541	10701
70°	1444	9186	9041
75°	1593	7484	7055
80°	1728	5184	4754
85°	1508	2746	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13782 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.7	0.8
10°-20°	450.8	3.7
20°-30°	788.5	6.5
30°-40°	1015.0	8.4
40°-50°	1133.7	9.4
50°-60°	1085.8	9.0
60°-70°	860.5	7.1
70°-80°	506.0	4.2
80°-90°	144.1	1.2
90°-100°	451.3	3.7
100°-110°	1186.6	9.8
110°-120°	1230.4	10.2
120°-130°	986.9	8.2
130°-140°	774.4	6.4
140°-150°	594.4	4.9
150°-160°	428.0	3.5
160°-170°	261.9	2.2
170°-180°	88.5	0.7
0°-30°	1340.9	11.1
0°-40°	2355.9	19.5
0°-60°	4575.5	37.8
0°-90°	6086.1	50.3
90°-120°	2868.3	23.7
90°-150°	5223.9	43.2
90°-180°	6002.0	49.7
0°-180°	12088.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	766	822	925	1047	1085	71
15°	574	1059	1785	2164	2232	160
25°	367	1201	2126	2220	2222	169
35°	248	1148	2002	2116	2200	155
45°	169	915	1770	2028	2119	131
55°	121	582	1502	1744	1792	111
65°	96	308	1115	1254	1272	95
75°	71	190	612	672	675	74
85°	25	58	152	167	169	27
90°	6	17	47	24	24	7
95°	60	234	777	401	273	66
105°	214	324	1312	1992	1858	227
115°	380	461	1051	2096	2392	375
125°	528	592	956	1615	1905	469
135°	630	693	926	1304	1478	487
145°	730	777	914	1112	1199	457
155°	825	848	914	1004	1033	379
165°	890	902	914	950	962	251
175°	926	926	920	932	932	88
180°	926	926	926	926	926	

TEST NUMBER: P937787

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2	786.2
2.5°	786.2	786.2	791.3	793.8	798.9	801.5	806.5	811.5	826.7	829.3	834.3
5°	766.0	776.2	809.1	821.7	857.1	905.1	925.3	958.2	1026.5	1046.7	1059.3
7.5°	735.7	758.5	839.3	859.5	948.1	1074.5	1127.6	1198.4	1307.1	1360.1	1403.2
10°	687.6	735.7	879.8	927.9	1072.0	1264.1	1362.7	1461.3	1625.7	1699.0	1726.8
12.5°	634.6	712.9	922.8	988.5	1195.8	1476.5	1595.3	1704.0	1891.1	1989.7	2004.8
15°	573.9	680.1	963.2	1059.3	1327.3	1653.5	1784.9	1918.9	2093.4	2164.1	2181.8
17.5°	520.8	654.8	1001.2	1102.3	1428.5	1812.7	1946.7	2057.9	2199.6	2247.6	2260.2
20°	455.1	614.3	1026.5	1157.9	1534.6	1929.1	2057.9	2143.9	2240.0	2270.3	2275.4
22.5°	407.1	571.4	1041.6	1178.2	1605.5	1999.8	2108.5	2176.8	2242.5	2252.7	2255.1
25°	366.6	523.3	1039.1	1200.9	1666.1	2042.8	2126.3	2176.8	2214.7	2219.8	2219.8
27.5°	328.7	470.2	1029.0	1206.0	1711.6	2052.9	2118.6	2154.0	2171.7	2181.8	2181.8
30°	295.8	419.7	1003.7	1195.8	1731.8	2042.8	2095.9	2113.6	2131.2	2146.5	2154.0
32.5°	270.5	371.6	965.7	1175.6	1734.3	2017.5	2055.4	2065.5	2090.8	2126.3	2138.8
35°	247.8	323.6	922.8	1147.8	1719.2	1977.1	2002.4	2012.4	2063.0	2116.1	2133.8
37.5°	225.0	288.2	867.2	1099.8	1696.4	1929.1	1946.7	1964.4	2042.8	2105.9	2126.3
40°	202.3	257.9	801.5	1046.7	1661.0	1870.9	1886.0	1913.8	2017.5	2090.8	2111.0
42.5°	184.6	232.6	730.7	991.0	1615.5	1805.2	1827.9	1868.3	1987.1	2065.5	2088.3
45°	169.4	207.3	654.8	915.2	1557.3	1736.8	1769.7	1825.4	1951.8	2027.7	2047.9
47.5°	154.2	189.6	576.4	836.8	1494.2	1668.6	1711.6	1774.8	1903.8	1977.1	1994.8
50°	141.5	171.9	498.1	753.4	1425.9	1595.3	1645.9	1711.6	1843.1	1911.3	1934.0
52.5°	131.5	156.8	424.7	670.0	1347.5	1519.4	1577.6	1645.9	1769.7	1835.4	1850.7
55°	121.3	144.1	361.5	581.5	1266.6	1438.5	1501.8	1567.5	1688.8	1744.5	1754.6
57.5°	116.3	134.0	308.5	498.1	1180.7	1347.5	1418.3	1479.0	1592.8	1635.7	1645.9
60°	108.7	126.4	268.0	427.3	1087.1	1261.5	1322.3	1382.9	1479.0	1514.4	1522.0
62.5°	101.1	121.3	237.6	359.0	991.0	1160.4	1221.1	1276.8	1357.6	1382.9	1393.0
65°	96.1	116.3	214.9	308.5	892.4	1054.3	1114.9	1162.9	1228.7	1254.0	1259.0
67.5°	91.0	111.3	197.2	265.4	793.8	948.1	993.6	1039.1	1089.6	1114.9	1117.5
70°	83.5	106.2	182.1	235.2	692.7	826.7	864.6	912.6	953.2	965.7	973.4
72.5°	78.4	98.6	171.9	212.3	589.0	710.4	745.8	773.6	809.1	821.7	821.7
75°	70.8	88.4	161.8	189.6	482.9	581.5	611.8	639.6	667.4	672.5	664.9
77.5°	63.2	78.4	139.0	159.3	376.7	460.2	485.5	500.6	523.3	528.4	531.0
80°	53.1	68.2	108.7	123.9	273.0	338.7	356.5	369.1	389.3	389.3	394.4
82.5°	40.4	53.1	78.4	88.4	184.6	232.6	247.8	255.4	268.0	268.0	268.0
85°	25.3	32.9	50.6	58.2	111.3	141.5	151.7	154.2	164.3	166.8	166.8
87.5°	12.6	17.7	32.9	35.4	58.2	73.3	73.3	78.4	78.4	75.9	73.3
90°	6.2	11.2	16.1	17.4	27.4	40.6	47.2	41.9	31.5	23.6	23.6
92.5°	24.9	67.1	109.4	119.9	168.6	233.5	265.9	233.1	167.3	118.0	113.3
95°	59.7	137.0	214.3	233.7	414.9	656.6	777.4	693.7	526.3	400.8	386.5
97.5°	103.2	171.4	239.6	256.7	558.9	961.8	1163.3	1110.4	1004.7	925.3	898.2
100°	136.8	198.6	260.5	275.9	611.2	1058.3	1282.0	1285.8	1293.6	1299.4	1267.1
102.5°	165.3	223.1	280.8	295.2	635.3	1088.8	1315.5	1382.9	1517.7	1618.8	1591.2
105°	213.7	262.6	311.5	323.8	653.2	1092.3	1311.8	1462.9	1765.0	1991.6	1976.8
107.5°	263.4	309.1	354.7	366.0	656.5	1043.6	1237.2	1448.0	1869.4	2185.5	2189.1
110°	297.0	338.1	379.4	389.6	651.5	1000.6	1175.1	1410.6	1881.8	2235.2	2250.7

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CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	330.0	369.2	408.5	418.2	651.7	962.9	1118.5	1359.6	1841.9	2203.6	2227.3
115°	379.7	415.8	452.0	461.0	657.7	919.7	1050.8	1283.0	1747.7	2096.1	2129.0
117.5°	428.8	461.6	494.5	502.7	669.8	892.7	1004.2	1213.8	1633.0	1947.5	1984.0
120°	457.4	488.3	519.2	527.0	679.9	883.7	985.5	1177.1	1560.1	1847.5	1882.9
122.5°	485.4	516.5	547.8	555.6	694.1	878.9	971.3	1143.8	1488.7	1747.4	1782.4
125°	528.2	556.7	585.2	592.2	713.4	875.0	955.8	1102.3	1395.3	1615.1	1647.4
127.5°	563.0	591.7	620.5	627.7	732.7	872.7	942.7	1068.5	1320.1	1508.8	1536.0
130°	581.7	612.6	643.5	651.3	746.8	874.1	937.7	1049.7	1273.7	1441.7	1466.8
132.5°	600.9	631.9	662.7	670.5	758.2	875.0	933.4	1033.6	1234.1	1384.5	1407.0
135°	629.5	657.7	685.8	692.9	770.6	874.1	925.9	1009.8	1177.8	1303.8	1323.2
137.5°	658.7	686.5	714.5	721.5	789.2	879.6	924.7	995.7	1137.6	1244.1	1259.9
140°	683.0	708.7	734.4	740.7	800.6	880.4	920.3	981.7	1104.3	1196.2	1211.0
142.5°	701.6	725.4	749.1	755.1	810.1	883.6	920.3	974.2	1081.9	1162.6	1175.4
145°	730.2	750.9	771.6	776.8	822.6	883.7	914.1	958.2	1046.3	1112.3	1122.0
147.5°	758.8	778.9	799.0	804.1	840.7	889.6	914.1	948.8	1018.1	1070.1	1078.1
150°	777.4	795.6	813.8	818.4	850.3	892.8	914.1	943.4	1001.9	1045.8	1052.3
152.5°	796.7	810.5	824.3	827.8	856.6	894.9	914.1	939.1	989.1	1026.6	1031.5
155°	825.3	835.4	845.6	848.2	870.2	899.5	914.1	934.0	973.8	1003.6	1006.9
157.5°	846.4	856.4	866.2	868.7	883.9	904.1	914.1	929.6	960.5	983.7	986.0
160°	860.6	868.4	876.2	878.1	890.1	906.2	914.1	927.4	953.9	973.8	975.1
162.5°	875.0	880.8	886.5	888.0	896.7	908.4	914.1	925.3	947.7	964.4	965.6
165°	890.5	895.7	901.0	902.3	906.3	911.5	914.1	922.1	938.1	950.2	951.5
167.5°	904.8	907.3	909.7	910.3	913.6	918.1	920.3	925.6	936.0	943.9	944.5
170°	914.1	916.6	919.1	919.7	919.9	920.2	920.3	925.6	936.0	943.9	943.9
172.5°	919.1	919.6	920.2	920.3	920.3	920.3	920.3	924.5	932.8	938.9	938.4
175°	925.9	925.9	925.9	925.9	924.0	921.5	920.3	922.9	928.2	932.2	932.2
177.5°	925.9	925.9	925.9	925.9	924.5	922.6	921.6	923.7	927.8	930.9	930.3
180°	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	786.2	786.2
2.5°	839.3	834.3
5°	1079.6	1084.6
7.5°	1453.8	1451.2
10°	1807.6	1830.4
12.5°	2065.5	2070.6
15°	2222.3	2232.4
17.5°	2282.9	2285.5
20°	2285.5	2280.4
22.5°	2257.6	2252.7
25°	2224.8	2222.3
27.5°	2194.5	2197.0
30°	2181.8	2189.4
32.5°	2181.8	2194.5
35°	2186.9	2199.6
37.5°	2184.3	2199.6
40°	2174.3	2191.9
42.5°	2146.5	2159.1
45°	2103.5	2118.6
47.5°	2047.9	2057.9
50°	1977.1	1987.1
52.5°	1888.5	1891.1
55°	1782.3	1792.5
57.5°	1668.6	1671.1
60°	1542.2	1549.8
62.5°	1408.2	1408.2
65°	1266.6	1271.7
67.5°	1120.0	1132.7
70°	970.8	973.4
72.5°	824.2	824.2
75°	672.5	675.0
77.5°	528.4	528.4
80°	391.8	394.4
82.5°	270.5	275.6
85°	169.4	169.4
87.5°	78.4	70.8
90°	23.6	23.6
92.5°	94.5	75.8
95°	329.7	272.8
97.5°	789.9	681.7
100°	1138.1	1009.1
102.5°	1480.7	1370.2
105°	1917.4	1858.0
107.5°	2203.6	2217.9
110°	2312.6	2374.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2322.3	2417.3
115°	2260.7	2392.5
117.5°	2130.1	2276.3
120°	2025.0	2166.9
122.5°	1922.5	2062.5
125°	1776.3	1905.2
127.5°	1644.9	1753.7
130°	1567.4	1667.9
132.5°	1497.1	1587.1
135°	1400.8	1478.4
137.5°	1323.5	1387.0
140°	1270.5	1329.9
142.5°	1226.6	1277.7
145°	1160.7	1199.4
147.5°	1110.1	1142.2
150°	1078.3	1104.3
152.5°	1051.1	1070.7
155°	1019.8	1032.8
157.5°	995.1	1004.2
160°	980.4	985.5
162.5°	970.6	975.6
165°	956.8	961.9
167.5°	946.7	948.9
170°	943.9	943.9
172.5°	936.5	934.6
175°	932.2	932.2
177.5°	928.1	925.9
180°	925.9	925.9

TEST NUMBER: P937787

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-2700K

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	6.53	7.43	7.48	8.40	9.66	19.69	20.60	20.64	21.56	22.83
	3H	7.24	8.05	8.20	9.03	10.31	21.53	22.34	22.49	23.32	24.61
	4H	7.54	8.31	8.51	9.29	10.58	22.17	22.94	23.15	23.93	25.22
	6H	7.79	8.50	8.77	9.49	10.79	22.60	23.31	23.59	24.30	25.61
	8H	7.86	8.54	8.85	9.54	10.84	22.72	23.40	23.71	24.40	25.71
	12H	7.88	8.52	8.87	9.52	10.85	22.79	23.43	23.79	24.43	25.76
4H	2H	13.74	14.51	14.72	15.49	16.78	19.97	20.74	20.95	21.72	23.02
	3H	15.31	15.96	16.30	16.97	18.28	22.02	22.66	23.01	23.67	24.98
	4H	15.41	16.00	16.41	17.00	18.33	22.78	23.37	23.78	24.38	25.71
	6H	15.42	15.93	16.43	16.96	18.29	23.32	23.83	24.33	24.86	26.19
	8H	15.40	15.88	16.41	16.90	18.24	23.48	23.96	24.49	24.98	26.32
	12H	15.36	15.79	16.39	16.83	18.18	23.57	24.01	24.60	25.04	26.39
8H	4H	16.85	17.33	17.86	18.35	19.70	22.85	23.32	23.86	24.34	25.69
	6H	17.10	17.49	18.13	18.56	19.90	23.47	23.87	24.51	24.93	26.27
	8H	17.12	17.47	18.16	18.51	19.87	23.69	24.04	24.73	25.09	26.45
	12H	17.09	17.39	18.13	18.44	19.84	23.84	24.14	24.88	25.19	26.59
12H	4H	17.00	17.43	18.03	18.47	19.82	22.80	23.23	23.83	24.27	25.62
	6H	17.36	17.71	18.40	18.75	20.11	23.46	23.81	24.50	24.85	26.22
	8H	17.43	17.73	18.48	18.78	20.18	23.69	23.99	24.73	25.04	26.44