

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: P853907

Luminaire Tested: SQ2-FB-150U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853907
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-150U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

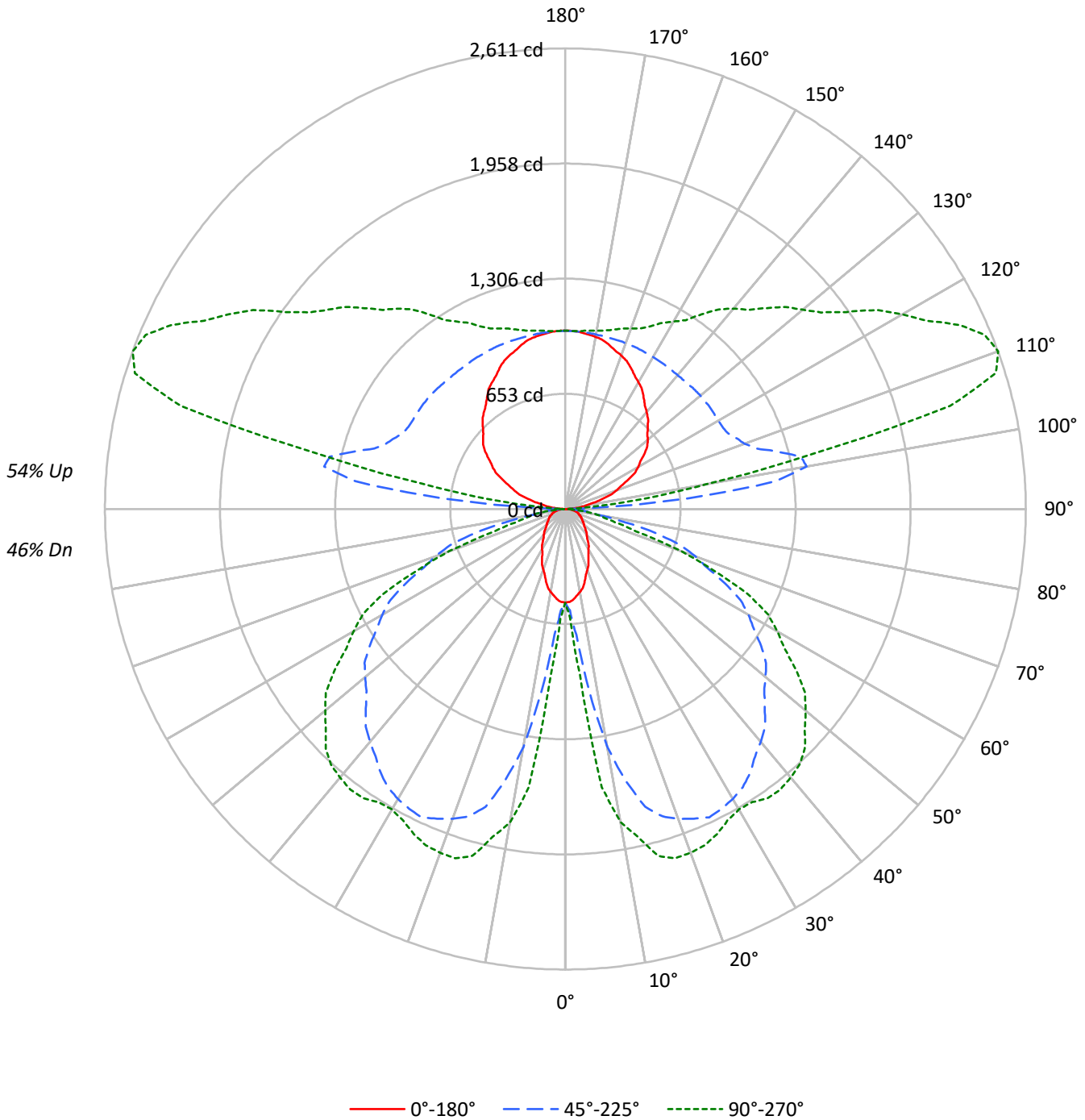
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11486.8 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.8
Input Voltage (V): 120
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	0
RCR																		
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	97	92	88	85	89	85	81	78	71	68	66	58	56	55	46	45	44	38
2	88	80	74	69	80	74	68	64	62	58	54	50	48	45	40	38	36	31
3	80	70	63	57	73	64	58	53	54	49	45	44	41	38	35	32	30	26
4	73	62	54	47	66	57	50	44	47	42	38	39	35	32	31	28	26	22
5	66	55	46	40	61	50	43	38	42	37	32	35	30	27	28	24	22	19
6	61	49	40	34	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14
8	52	39	32	26	47	36	29	24	31	25	21	25	21	18	20	17	15	12
9	48	36	28	23	44	33	26	22	28	23	19	23	19	16	19	15	13	11
10	45	33	25	20	41	30	24	19	26	20	17	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8578	8578	8578
5°	8363	11593	15195
10°	7832	22448	29568
15°	7089	29207	34033
20°	6277	32129	35641
25°	5553	34360	36225
30°	4905	35386	36672
35°	4380	36001	39425
40°	3984	36343	41890
45°	3674	36516	43863
50°	3464	37216	44661
55°	3381	38185	45017
60°	3465	38689	44792
65°	3610	38158	43526
70°	3739	36902	32922
75°	4142	33144	18166
80°	4277	17099	16867
85°	4261	11838	7095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 45422 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	0.8
10°-20°	406.4	3.5
20°-30°	714.9	6.2
30°-40°	925.4	8.1
40°-50°	1020.7	8.9
50°-60°	953.0	8.3
60°-70°	736.5	6.4
70°-80°	339.7	3.0
80°-90°	66.0	0.6
90°-100°	384.9	3.4
100°-110°	1260.4	11.0
110°-120°	1246.1	10.8
120°-130°	1018.6	8.9
130°-140°	831.2	7.2
140°-150°	646.9	5.6
150°-160°	465.8	4.1
160°-170°	285.0	2.5
170°-180°	96.3	0.8
0°-30°	1210.3	10.5
0°-40°	2135.7	18.6
0°-60°	4109.4	35.8
0°-90°	5251.6	45.7
90°-120°	2891.4	25.2
90°-150°	5388.2	46.9
90°-180°	6235.0	54.3
0°-180°	11486.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	516	591	715	873	938	48
15°	424	836	1747	1956	2036	118
25°	312	1123	1929	2014	2033	143
35°	222	1084	1826	1890	2000	140
45°	161	830	1599	1836	1921	125
55°	120	495	1356	1559	1599	108
65°	94	279	999	1119	1139	93
75°	66	171	531	286	291	68
85°	23	50	64	43	38	24
90°	1	3	8	7	8	4
95°	54	156	700	249	162	61
105°	219	312	1251	2377	2258	231
115°	394	472	1016	2100	2466	390
125°	549	612	1002	1656	1946	489
135°	661	731	994	1429	1610	512
145°	774	830	992	1229	1347	485
155°	882	911	998	1099	1142	406
165°	962	972	1002	1041	1052	271
175°	1006	1006	1007	1014	1012	95
180°	1010	1010	1010	1010	1010	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	531.3	531.3	531.3	531.3	531.3
2.5°	527.3	549.2	574.3	603.1	615.1
5°	516.0	591.0	715.3	872.6	937.5
7.5°	496.1	648.5	1040.2	1461.1	1591.0
10°	477.7	690.0	1369.2	1733.6	1803.5
12.5°	457.3	745.5	1575.7	1831.7	1903.7
15°	424.1	836.2	1747.3	1956.1	2036.0
17.5°	389.8	938.3	1827.0	2032.9	2076.3
20°	365.3	1009.7	1869.9	2046.8	2074.3
22.5°	342.8	1063.2	1900.6	2034.6	2064.1
25°	311.7	1123.4	1928.7	2013.5	2033.4
27.5°	281.5	1139.3	1916.4	1972.1	1991.5
30°	263.1	1134.9	1898.0	1939.5	1967.0
32.5°	246.8	1122.5	1871.5	1911.7	1971.1
35°	222.2	1084.0	1826.5	1890.3	2000.2
37.5°	201.3	1022.1	1767.2	1897.9	2003.8
40°	189.0	975.8	1724.3	1897.5	1987.5
42.5°	176.8	921.6	1675.3	1877.1	1967.0
45°	160.9	830.3	1599.2	1836.1	1921.0
47.5°	146.1	727.6	1528.7	1779.4	1841.3
50°	137.9	657.5	1481.6	1728.0	1778.0
52.5°	129.8	589.4	1434.6	1666.6	1712.6
55°	120.1	494.7	1356.5	1559.2	1599.2
57.5°	111.4	413.6	1267.6	1440.5	1473.0
60°	107.3	369.6	1198.1	1354.7	1387.1
62.5°	101.2	329.5	1120.4	1264.7	1295.2
65°	94.5	279.4	998.8	1119.4	1139.3
67.5°	85.3	242.2	869.6	943.3	905.8
70°	79.2	224.1	781.7	804.8	697.4
72.5°	75.1	204.0	685.6	624.8	421.5
75°	66.4	171.3	531.3	286.2	291.2
77.5°	54.2	132.6	349.5	219.8	224.3
80°	46.0	108.4	183.9	178.9	181.4
82.5°	37.8	84.3	126.7	131.7	128.2
85°	23.0	50.5	63.9	43.3	38.3
87.5°	8.4	18.8	11.9	11.7	11.9
90°	1.0	3.1	8.3	7.3	8.3
92.5°	17.7	64.3	197.7	64.3	51.5
95°	54.0	156.5	699.8	249.3	162.0
97.5°	98.0	206.4	1200.6	726.3	450.2
100°	128.7	232.3	1389.2	1240.5	822.3
102.5°	163.6	264.7	1368.4	1827.9	1417.0
105°	219.1	312.5	1251.1	2377.0	2258.2
107.5°	273.7	359.4	1136.7	2428.3	2558.9
110°	309.4	392.6	1081.9	2368.6	2611.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	424.3	1048.6	2264.6	2575.5
115°	394.5	471.7	1016.4	2100.4	2465.8
117.5°	444.2	516.2	1004.2	1939.0	2310.1
120°	476.6	544.6	1000.9	1844.9	2206.3
122.5°	505.6	572.0	1000.9	1763.7	2099.1
125°	549.2	612.2	1001.9	1656.4	1945.7
127.5°	586.2	650.4	1000.7	1577.2	1829.0
130°	609.5	674.4	999.8	1529.3	1756.7
132.5°	630.2	696.8	997.3	1488.1	1694.4
135°	661.4	731.4	993.6	1428.6	1610.3
137.5°	694.2	763.6	991.3	1366.5	1530.8
140°	717.4	784.4	990.5	1327.3	1482.6
142.5°	740.7	803.6	990.5	1285.4	1426.1
145°	773.5	830.3	991.5	1228.9	1346.6
147.5°	808.0	855.3	993.0	1179.6	1268.5
150°	829.6	871.2	994.6	1151.1	1226.2
152.5°	851.2	887.9	995.5	1127.5	1189.6
155°	881.5	910.9	997.8	1099.4	1142.1
157.5°	908.7	930.0	1000.0	1077.4	1108.2
160°	926.1	943.4	1000.9	1064.8	1089.1
162.5°	941.1	955.1	1000.9	1054.6	1072.5
165°	962.5	971.6	1001.9	1040.6	1051.7
167.5°	980.5	985.0	1003.2	1029.7	1035.8
170°	990.5	992.5	1004.0	1023.8	1025.8
172.5°	998.0	999.2	1006.5	1019.6	1020.0
175°	1006.1	1006.1	1007.1	1014.3	1012.3
177.5°	1010.2	1009.4	1008.6	1013.5	1010.2
180°	1010.2	1010.2	1010.2	1010.2	1010.2

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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	14.13	14.97	15.11	15.98	17.31	22.86	23.71	23.85	24.71	26.04
	3H	14.86	15.62	15.85	16.63	17.98	24.48	25.24	25.48	26.26	27.61
	4H	15.15	15.87	16.17	16.89	18.25	24.66	25.38	25.68	26.40	27.76
	6H	15.37	16.03	16.39	17.05	18.42	24.75	25.41	25.77	26.43	27.80
	8H	15.43	16.06	16.46	17.10	18.46	24.75	25.38	25.78	26.42	27.79
	12H	15.46	16.06	16.49	17.09	18.48	24.72	25.32	25.76	26.35	27.75
4H	2H	18.52	19.24	19.54	20.26	21.62	23.30	24.02	24.32	25.04	26.40
	3H	19.45	20.05	20.48	21.10	22.47	25.13	25.73	26.15	26.77	28.14
	4H	19.74	20.29	20.77	21.32	22.72	25.36	25.91	26.40	26.95	28.34
	6H	19.87	20.34	20.91	21.40	22.79	25.51	25.98	26.56	27.04	28.43
	8H	19.89	20.33	20.93	21.38	22.79	25.53	25.97	26.58	27.03	28.43
	12H	19.88	20.28	20.94	21.34	22.76	25.51	25.90	26.57	26.97	28.38
8H	4H	20.91	21.35	21.96	22.40	23.81	25.48	25.92	26.53	26.97	28.38
	6H	21.15	21.51	22.22	22.60	24.01	25.69	26.05	26.76	27.14	28.55
	8H	21.22	21.54	22.30	22.61	24.04	25.75	26.07	26.83	27.14	28.57
	12H	21.24	21.52	22.33	22.60	24.06	25.74	26.02	26.82	27.09	28.56
12H	4H	20.93	21.33	21.99	22.39	23.80	25.43	25.83	26.50	26.90	28.31
	6H	21.24	21.56	22.32	22.64	24.06	25.67	25.99	26.75	27.07	28.49
	8H	21.34	21.62	22.43	22.70	24.16	25.74	26.02	26.82	27.09	28.55