

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: P855188

Luminaire Tested: SQ2-FB-150U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855188
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-050D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

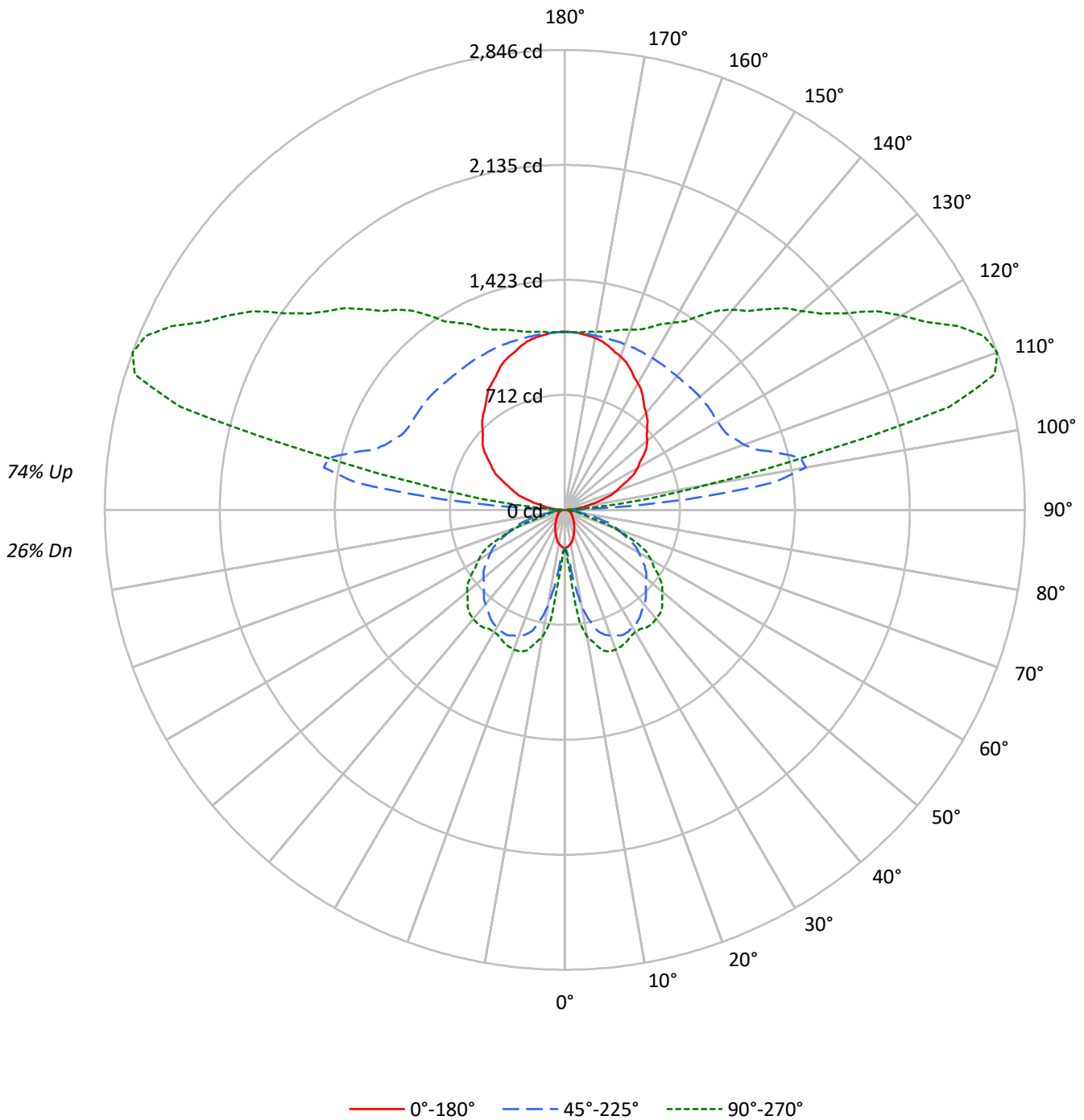
Lumens per Lamp: N/A
Luminaire Lumens: 9122.9 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.4
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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26
1	92	88	84	81	82	79	75	73	61	59	57	45	43	42	30	29	28	21
2	84	77	71	66	74	68	63	59	53	50	47	39	37	35	26	24	23	18
3	76	67	60	54	68	60	54	49	46	42	39	34	31	29	23	21	20	15
4	69	59	51	45	62	53	46	41	41	36	33	30	27	25	20	18	17	12
5	63	52	44	39	56	47	40	35	36	32	28	27	24	21	18	16	14	10
6	58	47	39	33	52	42	35	30	33	28	24	24	21	18	16	14	12	9
7	54	42	34	29	48	37	31	26	29	24	21	22	18	16	14	12	11	8
8	50	38	30	25	44	34	27	23	26	22	18	20	16	14	13	11	9	7
9	46	34	27	22	41	31	24	20	24	19	16	18	15	12	12	10	8	6
10	43	31	24	19	38	28	22	18	22	17	14	16	13	11	11	9	8	5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3801	3801	3801
5°	3705	5136	6731
10°	3469	9945	13100
15°	3141	12939	15076
20°	2780	14234	15789
25°	2460	15221	16048
30°	2174	15676	16246
35°	1941	15948	17465
40°	1764	16101	18556
45°	1628	16175	19431
50°	1535	16488	19783
55°	1498	16915	19941
60°	1534	17140	19843
65°	1601	16905	19282
70°	1657	16348	14582
75°	1834	14685	8047
80°	1897	7578	7466
85°	1890	5243	3149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 20123 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	0.4
10°-20°	180.0	2.0
20°-30°	316.7	3.5
30°-40°	410.0	4.5
40°-50°	452.1	5.0
50°-60°	422.2	4.6
60°-70°	326.3	3.6
70°-80°	150.5	1.6
80°-90°	29.9	0.3
90°-100°	419.5	4.6
100°-110°	1373.7	15.1
110°-120°	1358.1	14.9
120°-130°	1110.2	12.2
130°-140°	906.0	9.9
140°-150°	705.1	7.7
150°-160°	507.7	5.6
160°-170°	310.6	3.4
170°-180°	104.9	1.2
0°-30°	536.2	5.9
0°-40°	946.1	10.4
0°-60°	1820.4	20.0
0°-90°	2327.2	25.5
90°-120°	3151.3	34.5
90°-150°	5872.5	64.4
90°-180°	6796.0	74.5
0°-180°	9122.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	235	235	235	235	235	
5°	229	262	317	387	415	21
15°	188	370	774	866	902	52
25°	138	498	854	892	901	63
35°	98	480	809	837	886	62
45°	71	368	708	813	851	55
55°	53	219	601	691	708	48
65°	42	124	442	496	505	41
75°	29	76	235	127	129	30
85°	10	22	28	19	17	11
90°	1	3	9	8	9	3
95°	59	170	763	272	176	67
105°	239	340	1364	2591	2461	252
115°	430	514	1108	2289	2688	425
125°	599	667	1092	1805	2121	533
135°	721	797	1083	1557	1755	558
145°	843	905	1081	1339	1468	528
155°	961	993	1087	1198	1245	442
165°	1049	1059	1092	1134	1146	296
175°	1096	1096	1098	1106	1103	104
180°	1101	1101	1101	1101	1101	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	235.4	235.4	235.4	235.4	235.4
2.5°	233.6	243.3	254.4	267.2	272.5
5°	228.6	261.8	316.9	386.6	415.3
7.5°	219.8	287.2	460.8	647.3	704.8
10°	211.6	305.7	606.6	767.9	799.0
12.5°	202.6	330.2	698.0	811.4	843.3
15°	187.9	370.4	774.1	866.5	901.9
17.5°	172.7	415.7	809.4	900.6	919.8
20°	161.8	447.3	828.4	906.8	918.9
22.5°	151.9	471.0	842.0	901.4	914.4
25°	138.1	497.7	854.4	892.0	900.8
27.5°	124.7	504.7	849.0	873.6	882.2
30°	116.6	502.7	840.8	859.3	871.4
32.5°	109.3	497.3	829.1	846.8	873.2
35°	98.5	480.2	809.1	837.4	886.1
37.5°	89.2	452.8	782.9	840.7	887.7
40°	83.7	432.3	763.9	840.6	880.4
42.5°	78.3	408.3	742.1	831.5	871.4
45°	71.3	367.8	708.4	813.4	851.0
47.5°	64.7	322.3	677.2	788.3	815.7
50°	61.1	291.3	656.4	765.5	787.6
52.5°	57.5	261.1	635.5	738.3	758.7
55°	53.2	219.2	600.9	690.8	708.4
57.5°	49.3	183.2	561.5	638.1	652.5
60°	47.5	163.8	530.8	600.1	614.5
62.5°	44.8	146.0	496.3	560.3	573.8
65°	41.9	123.8	442.5	495.9	504.7
67.5°	37.8	107.3	385.2	417.9	401.3
70°	35.1	99.2	346.3	356.5	308.9
72.5°	33.3	90.4	303.7	276.8	186.7
75°	29.4	75.9	235.4	126.7	129.0
77.5°	24.0	58.7	154.8	97.3	99.4
80°	20.4	48.0	81.5	79.2	80.3
82.5°	16.7	37.3	56.1	58.4	56.8
85°	10.2	22.4	28.3	19.2	17.0
87.5°	3.8	8.7	6.3	6.1	6.3
90°	1.1	3.4	9.1	7.9	9.1
92.5°	19.2	70.2	215.5	70.0	56.1
95°	58.8	170.5	762.7	271.7	176.5
97.5°	106.8	225.0	1308.5	791.6	490.7
100°	140.3	253.2	1514.1	1352.1	896.2
102.5°	178.4	288.6	1491.4	1992.3	1544.4
105°	238.8	340.5	1363.5	2590.6	2461.1
107.5°	298.3	391.7	1238.8	2646.6	2788.9
110°	337.2	428.0	1179.1	2581.4	2845.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	374.4	462.4	1142.9	2468.2	2807.0
115°	430.0	514.1	1107.8	2289.2	2687.5
117.5°	484.1	562.7	1094.4	2113.3	2517.7
120°	519.4	593.6	1090.8	2010.7	2404.6
122.5°	551.1	623.4	1090.8	1922.2	2287.9
125°	598.7	667.2	1091.9	1805.2	2120.6
127.5°	638.9	708.8	1090.6	1719.0	1993.4
130°	664.3	735.0	1089.7	1666.8	1914.7
132.5°	686.9	759.5	1087.0	1621.9	1846.8
135°	720.9	797.1	1082.9	1557.1	1755.1
137.5°	756.6	832.2	1080.4	1489.4	1668.4
140°	781.9	855.0	1079.5	1446.6	1615.9
142.5°	807.2	875.9	1079.5	1401.0	1554.3
145°	843.0	905.0	1080.6	1339.3	1467.7
147.5°	880.5	932.2	1082.2	1285.7	1382.6
150°	904.1	949.5	1084.0	1254.6	1336.4
152.5°	927.6	967.7	1084.9	1228.9	1296.5
155°	960.7	992.8	1087.4	1198.3	1244.7
157.5°	990.3	1013.6	1089.9	1174.2	1207.8
160°	1009.3	1028.2	1090.8	1160.5	1187.0
162.5°	1025.6	1040.9	1090.8	1149.4	1168.9
165°	1048.9	1058.9	1091.9	1134.2	1146.3
167.5°	1068.6	1073.5	1093.3	1122.3	1128.8
170°	1079.5	1081.8	1094.2	1115.8	1118.0
172.5°	1087.6	1089.0	1096.9	1111.2	1111.6
175°	1096.5	1096.5	1097.6	1105.5	1103.3
177.5°	1101.0	1100.1	1099.2	1104.6	1101.0
180°	1101.0	1101.0	1101.0	1101.0	1101.0



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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	8.86	9.54	9.99	10.68	12.26	17.59	18.28	18.73	19.41	20.99
	3H	9.57	10.19	10.72	11.33	12.92	19.20	19.82	20.35	20.96	22.55
	4H	9.86	10.45	11.02	11.59	13.19	19.37	19.96	20.53	21.10	22.70
	6H	10.07	10.61	11.23	11.75	13.36	19.45	19.99	20.61	21.13	22.74
	8H	10.12	10.64	11.29	11.79	13.40	19.45	19.96	20.61	21.12	22.72
	12H	10.15	10.63	11.32	11.78	13.41	19.41	19.90	20.58	21.05	22.68
4H	2H	13.23	13.82	14.39	14.96	16.56	18.01	18.60	19.18	19.74	21.34
	3H	14.15	14.64	15.32	15.80	17.41	19.82	20.31	20.99	21.47	23.09
	4H	14.42	14.87	15.59	16.02	17.66	20.05	20.50	21.22	21.65	23.29
	6H	14.54	14.93	15.72	16.10	17.73	20.18	20.57	21.36	21.75	23.37
	8H	14.56	14.92	15.73	16.09	17.73	20.20	20.56	21.38	21.73	23.37
	12H	14.54	14.87	15.73	16.05	17.69	20.17	20.49	21.36	21.67	23.32
8H	4H	15.58	15.94	16.76	17.11	18.75	20.15	20.51	21.33	21.68	23.32
	6H	15.81	16.11	17.01	17.32	18.95	20.35	20.64	21.54	21.85	23.49
	8H	15.88	16.14	17.08	17.32	18.98	20.41	20.66	21.61	21.85	23.51
	12H	15.90	16.12	17.10	17.31	19.00	20.39	20.62	21.60	21.80	23.49
12H	4H	15.59	15.92	16.78	17.09	18.74	20.09	20.42	21.29	21.60	23.24
	6H	15.90	16.16	17.10	17.35	19.00	20.33	20.59	21.53	21.77	23.43
	8H	16.00	16.22	17.20	17.41	19.10	20.39	20.61	21.59	21.80	23.49