

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:

Luminaire Tested: SQ4-FB-0U-050D-840-1D-UNV-STD-W-8

Issue Date: 8/1/2024

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-892-3)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-0U-050D-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

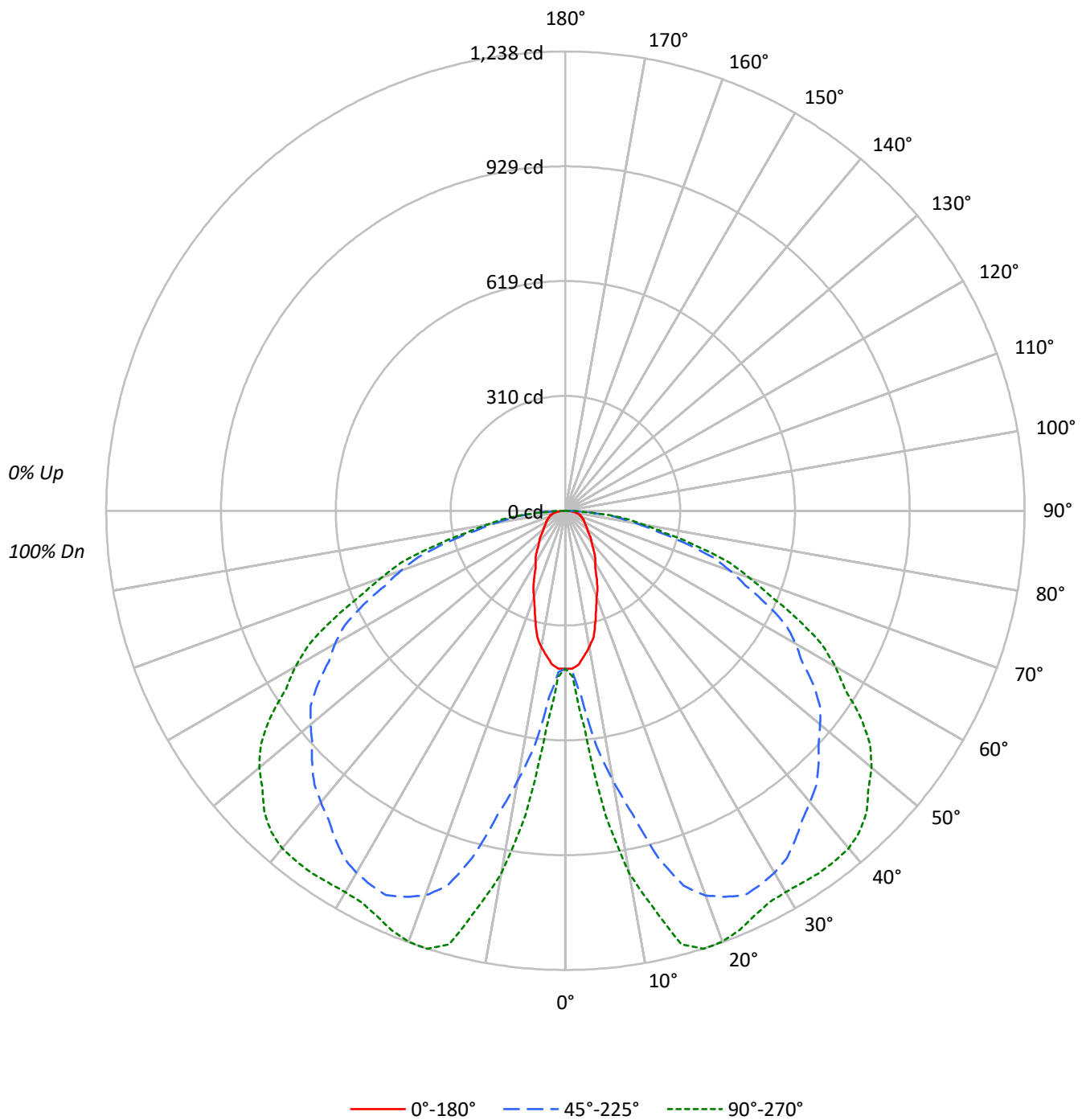
Lumens per Lamp: N/A
Luminaire Lumens: 3298.7 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 0.7 / 2.7 / 2.32
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 35.2
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

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-840-1D-UNV-STD-W-8

Luminous Intensity Polar Plot



TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-840-1D-UNV-STD-W-8

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		89
2	97	88	81	75	95	87	80	74	83	77	72		80	75	71		77
3	88	77	68	61	86	75	67	61	72	65	59		69	63	58		67
4	80	67	58	51	78	66	57	51	63	56	50		61	54	49		59
5	73	60	50	43	71	58	50	43	56	48	42		54	47	42		52
6	67	53	44	37	65	52	43	37	50	42	36		49	42	36		47
7	62	48	39	32	60	47	38	32	45	38	32		44	37	32		43
8	58	43	34	28	56	43	34	28	41	34	28		40	33	28		39
9	54	40	31	25	52	39	31	25	38	30	25		37	30	25		36
10	50	36	28	23	49	36	28	22	35	27	22		34	27	22		33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1966	1966	1966
5°	1923	2339	2723
10°	1746	3461	4648
15°	1486	4625	5780
20°	1211	5419	6069
25°	1011	5822	6132
30°	854	6001	6322
35°	756	6090	6715
40°	660	6178	7156
45°	599	6299	7493
50°	551	6433	7731
55°	529	6554	7815
60°	543	6613	7752
65°	569	6560	7525
70°	610	6360	7118
75°	684	5900	6522
80°	765	5098	5680
85°	725	4245	4859

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 52.5°

Luminance: 7848 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-840-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.9	1.7
10°-20°	243.5	7.4
20°-30°	426.7	12.9
30°-40°	549.5	16.7
40°-50°	613.5	18.6
50°-60°	588.3	17.8
60°-70°	468.2	14.2
70°-80°	275.8	8.4
80°-90°	77.3	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	726.1	22.0
0°-40°	1275.6	38.7
0°-60°	2477.4	75.1
0°-90°	3298.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3298.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	426	426	426	426	426	
5°	415	445	505	570	588	38
15°	311	572	968	1171	1210	86
25°	199	648	1144	1203	1205	92
35°	134	608	1081	1147	1192	84
45°	92	477	966	1097	1148	71
55°	66	319	815	942	972	60
65°	52	208	601	678	689	52
75°	38	131	331	361	366	40
85°	14	36	80	90	92	15
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
0°	426.2	426.2	426.2	426.2	426.2	426.2	426.2	426.2	426.2	426.2
2.5°	426.2	426.2	428.4	431.7	432.8	437.2	443.8	447.1	449.3	447.1
5°	415.3	420.8	438.6	464.6	490.7	519.4	556.5	574.3	585.2	588.0
7.5°	393.6	408.7	459.4	527.4	603.1	678.2	743.1	795.8	826.5	827.8
10°	372.8	398.8	477.0	581.1	685.3	792.2	881.3	936.1	980.0	992.3
12.5°	349.8	389.0	495.6	634.8	777.4	897.5	996.4	1056.7	1091.8	1096.5
15°	311.1	368.7	522.2	719.6	896.4	1040.3	1134.8	1182.8	1204.7	1210.2
17.5°	275.2	350.6	545.5	785.9	995.3	1125.0	1196.8	1226.9	1237.9	1238.4
20°	246.7	333.0	556.5	831.9	1045.7	1162.2	1214.3	1233.5	1239.0	1236.3
22.5°	225.9	314.4	563.0	862.6	1076.4	1176.5	1215.4	1224.7	1226.9	1224.2
25°	198.7	283.7	563.3	903.2	1107.4	1180.1	1200.6	1203.4	1206.1	1204.7
27.5°	174.6	249.4	555.1	930.1	1111.8	1163.3	1172.9	1179.8	1188.3	1190.2
30°	160.4	227.5	544.1	938.8	1107.4	1145.8	1155.4	1167.7	1182.8	1186.9
32.5°	149.4	206.7	527.7	939.9	1096.5	1125.0	1137.8	1161.1	1182.8	1189.1
35°	134.3	175.4	500.3	932.0	1071.8	1091.0	1118.4	1156.8	1185.5	1192.4
37.5°	119.5	153.0	463.0	915.8	1039.4	1059.5	1104.7	1151.0	1183.1	1191.6
40°	109.6	139.8	434.5	900.5	1014.2	1037.5	1093.7	1144.4	1178.7	1188.3
42.5°	102.0	128.8	403.8	880.7	985.7	1017.8	1080.6	1134.6	1166.6	1174.0
45°	91.8	112.4	355.0	844.3	941.6	989.6	1058.1	1110.2	1140.3	1148.5
47.5°	82.2	100.9	304.0	802.6	896.6	955.3	1025.5	1074.8	1102.5	1108.0
50°	76.8	93.2	270.0	773.0	864.8	927.9	999.1	1048.5	1071.8	1077.3
52.5°	72.4	86.6	238.2	739.0	831.9	899.4	967.4	1012.3	1033.4	1035.6
55°	65.8	78.1	196.0	686.7	779.9	849.8	915.5	951.2	966.3	971.7
57.5°	62.2	71.8	162.8	629.9	721.2	791.4	851.1	878.8	890.9	892.8
60°	58.9	68.5	145.3	589.3	683.9	749.7	801.8	825.1	836.0	840.2
62.5°	55.6	66.3	132.1	547.7	640.1	703.7	749.2	769.2	777.9	778.8
65°	52.1	63.0	116.5	483.8	571.5	630.5	666.1	682.5	686.7	689.4
67.5°	48.5	59.8	105.3	419.4	500.8	549.6	575.9	590.2	591.0	596.7
70°	45.2	57.6	98.7	375.5	448.2	494.8	516.7	527.7	526.3	527.7
72.5°	43.0	54.3	94.3	330.6	397.7	434.5	454.2	461.9	462.7	463.0
75°	38.4	48.0	87.7	261.8	315.2	346.8	361.8	360.5	364.6	365.9
77.5°	33.2	41.4	72.1	193.0	236.3	257.1	269.2	273.0	271.6	271.9
80°	28.8	37.0	58.9	148.0	183.7	200.1	211.1	213.8	212.4	213.8
82.5°	23.3	30.4	45.8	109.6	137.6	150.8	158.4	159.0	159.8	162.3
85°	13.7	17.8	27.4	60.3	76.8	83.6	89.1	90.5	91.8	91.8
87.5°	5.5	7.7	14.3	25.2	31.8	34.0	34.0	31.8	34.0	30.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)