

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-830-1D-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-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

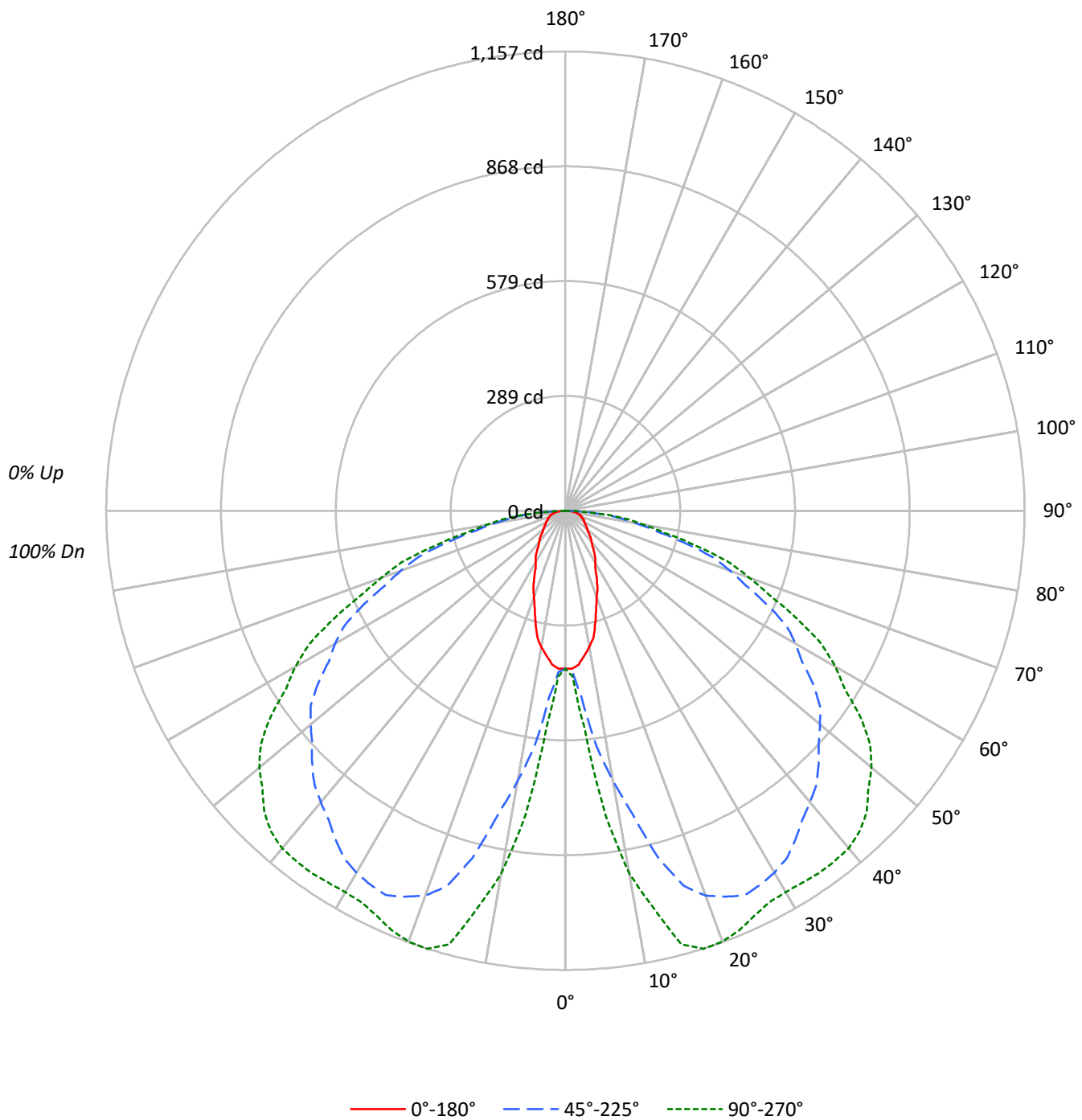
Lumens per Lamp: N/A
Luminaire Lumens: 3082.6 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 0.7 / 2.7 / 2.32
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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-830-1D-UNV-STD-W-8

Luminous Intensity Polar Plot



TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-830-1D-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°	1837	1837	1837
5°	1797	2185	2545
10°	1632	3234	4344
15°	1388	4321	5401
20°	1132	5065	5672
25°	945	5440	5730
30°	798	5608	5908
35°	707	5691	6275
40°	617	5773	6687
45°	560	5887	7002
50°	515	6012	7225
55°	495	6124	7304
60°	508	6180	7243
65°	532	6131	7032
70°	571	5943	6651
75°	640	5513	6096
80°	715	4763	5308
85°	677	3964	4541

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 52.5°

Luminance: 7334 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-830-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.2	1.7
10°-20°	227.6	7.4
20°-30°	398.8	12.9
30°-40°	513.5	16.7
40°-50°	573.3	18.6
50°-60°	549.8	17.8
60°-70°	437.5	14.2
70°-80°	257.8	8.4
80°-90°	72.3	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°	678.6	22.0
0°-40°	1192.0	38.7
0°-60°	2315.1	75.1
0°-90°	3082.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3082.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	388	416	472	532	550	36
15°	291	534	905	1094	1131	81
25°	186	606	1069	1124	1126	86
35°	126	568	1011	1072	1114	78
45°	86	446	902	1025	1073	66
55°	62	298	761	881	908	56
65°	49	195	562	634	644	48
75°	36	123	309	337	342	37
85°	13	33	75	84	86	14
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
0°	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3
2.5°	398.3	398.3	400.4	403.4	404.5	408.6	414.7	417.8	419.8	417.8
5°	388.1	393.2	409.9	434.2	458.5	485.4	520.0	536.6	546.9	549.5
7.5°	367.8	381.9	429.3	492.8	563.5	633.7	694.4	743.6	772.3	773.6
10°	348.4	372.7	445.7	543.1	640.4	740.3	823.5	874.8	915.8	927.3
12.5°	326.9	363.5	463.1	593.3	726.5	838.7	931.1	987.5	1020.3	1024.6
15°	290.7	344.5	488.0	672.4	837.6	972.1	1060.5	1105.3	1125.8	1130.9
17.5°	257.2	327.6	509.8	734.4	930.1	1051.3	1118.4	1146.6	1156.8	1157.3
20°	230.5	311.2	520.0	777.4	977.2	1086.1	1134.8	1152.7	1157.8	1155.3
22.5°	211.1	293.8	526.1	806.1	1005.9	1099.4	1135.8	1144.5	1146.6	1144.0
25°	185.7	265.1	526.4	844.0	1034.9	1102.8	1122.0	1124.5	1127.1	1125.8
27.5°	163.2	233.1	518.7	869.1	1039.0	1087.1	1096.1	1102.5	1110.4	1112.2
30°	149.9	212.6	508.5	877.3	1034.9	1070.7	1079.7	1091.2	1105.3	1109.2
32.5°	139.6	193.1	493.1	878.4	1024.6	1051.3	1063.3	1085.1	1105.3	1111.2
35°	125.5	163.9	467.5	870.9	1001.6	1019.5	1045.1	1081.0	1107.9	1114.3
37.5°	111.7	142.9	432.6	855.8	971.3	990.0	1032.3	1075.6	1105.6	1113.5
40°	102.5	130.6	406.0	841.5	947.8	969.6	1022.1	1069.5	1101.5	1110.4
42.5°	95.3	120.4	377.3	823.0	921.1	951.1	1009.8	1060.2	1090.2	1097.1
45°	85.8	105.0	331.7	789.0	879.9	924.7	988.8	1037.4	1065.6	1073.3
47.5°	76.8	94.3	284.1	750.0	837.9	892.7	958.3	1004.4	1030.3	1035.4
50°	71.7	87.1	252.3	722.4	808.2	867.1	933.7	979.8	1001.6	1006.7
52.5°	67.6	80.9	222.6	690.6	777.4	840.5	904.0	946.0	965.7	967.8
55°	61.5	73.0	183.2	641.7	728.8	794.1	855.6	888.9	903.0	908.1
57.5°	58.1	67.1	152.2	588.6	673.9	739.5	795.4	821.2	832.5	834.3
60°	55.1	64.0	135.8	550.7	639.1	700.6	749.3	771.0	781.3	785.1
62.5°	52.0	62.0	123.5	511.8	598.1	657.6	700.1	718.8	727.0	727.7
65°	48.7	58.9	108.9	452.1	534.1	589.2	622.5	637.8	641.7	644.2
67.5°	45.3	55.8	98.4	391.9	468.0	513.6	538.2	551.5	552.3	557.7
70°	42.3	53.8	92.2	350.9	418.8	462.4	482.9	493.1	491.8	493.1
72.5°	40.2	50.7	88.1	308.9	371.7	406.0	424.5	431.6	432.4	432.6
75°	35.9	44.8	82.0	244.6	294.6	324.0	338.1	336.8	340.7	342.0
77.5°	31.0	38.7	67.4	180.3	220.8	240.3	251.5	255.1	253.9	254.1
80°	26.9	34.6	55.1	138.3	171.6	187.0	197.2	199.8	198.5	199.8
82.5°	21.8	28.4	42.8	102.5	128.6	140.9	148.1	148.6	149.3	151.6
85°	12.8	16.7	25.6	56.4	71.7	78.1	83.3	84.5	85.8	85.8
87.5°	5.1	7.2	13.3	23.6	29.7	31.8	31.8	29.7	31.8	28.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)