

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-6

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-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

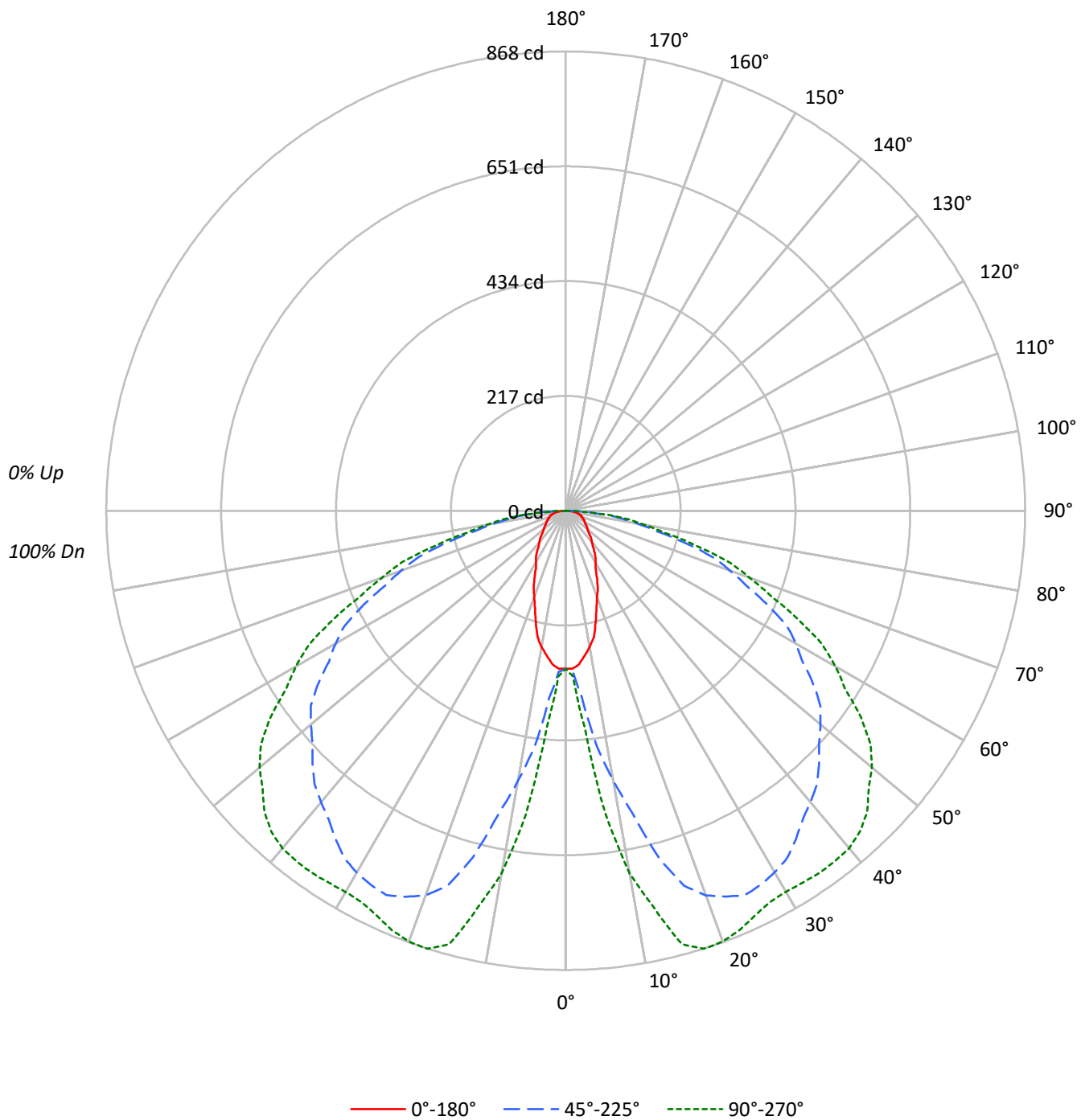
Lumens per Lamp: N/A
Luminaire Lumens: 2312.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 0.7 / 2.7 / 2.32
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
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-6

Luminous Intensity Polar Plot



TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-830-1D-UNV-STD-W-6

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82		
2	97	88	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67		
3	88	77	68	61	86	75	67	61	72	65	59	69	63	58	67	62	57	55		
4	80	67	58	51	78	66	57	51	63	56	50	61	54	49	59	53	48	46		
5	73	60	50	43	71	58	50	43	56	48	42	54	47	42	52	46	41	39		
6	67	53	44	37	65	52	43	37	50	42	36	49	42	36	47	41	36	34		
7	62	48	39	32	60	47	38	32	45	38	32	44	37	32	43	36	31	29		
8	58	43	34	28	56	43	34	28	41	34	28	40	33	28	39	32	28	26		
9	54	40	31	25	52	39	31	25	38	30	25	37	30	25	36	29	25	23		
10	50	36	28	23	49	36	28	22	35	27	22	34	27	22	33	27	22	20		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1837	1837	1837
5°	1797	2186	2544
10°	1632	3234	4344
15°	1389	4321	5401
20°	1132	5065	5672
25°	945	5441	5731
30°	798	5608	5908
35°	707	5691	6275
40°	617	5773	6687
45°	560	5886	7002
50°	515	6011	7225
55°	494	6124	7304
60°	508	6180	7243
65°	531	6131	7033
70°	570	5943	6650
75°	639	5512	6096
80°	716	4762	5310
85°	677	3966	4545

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 52.5°

Luminance: 7333 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-830-1D-UNV-STD-W-6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	1.7
10°-20°	170.7	7.4
20°-30°	299.1	12.9
30°-40°	385.1	16.7
40°-50°	430.0	18.6
50°-60°	412.3	17.8
60°-70°	328.1	14.2
70°-80°	193.3	8.4
80°-90°	54.2	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°	508.9	22.0
0°-40°	894.0	38.7
0°-60°	1736.3	75.1
0°-90°	2312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2312.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	299	299	299	299	299	
5°	291	312	354	399	412	27
15°	218	401	679	821	848	61
25°	139	454	802	843	844	64
35°	94	426	758	804	836	59
45°	64	335	677	769	805	50
55°	46	223	571	660	681	42
65°	36	146	421	476	483	36
75°	27	92	232	253	256	28
85°	10	25	56	63	64	11
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FB-0U-050D-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
0°	298.7	298.7	298.7	298.7	298.7	298.7	298.7	298.7	298.7	298.7
2.5°	298.7	298.7	300.3	302.6	303.4	306.4	311.0	313.3	314.9	313.3
5°	291.1	294.9	307.4	325.6	343.9	364.1	390.0	402.5	410.2	412.1
7.5°	275.9	286.4	322.0	369.6	422.7	475.3	520.8	557.7	579.2	580.2
10°	261.3	279.5	334.3	407.3	480.3	555.2	617.7	656.1	686.8	695.5
12.5°	245.1	272.6	347.3	444.9	544.8	629.0	698.3	740.6	765.2	768.5
15°	218.1	258.4	366.0	504.3	628.2	729.1	795.4	829.0	844.4	848.2
17.5°	192.9	245.7	382.3	550.8	697.6	788.5	838.8	859.9	867.6	868.0
20°	172.9	233.4	390.0	583.1	732.9	814.6	851.1	864.5	868.4	866.5
22.5°	158.3	220.4	394.6	604.6	754.4	824.6	851.9	858.4	859.9	858.0
25°	139.3	198.8	394.8	633.0	776.2	827.1	841.5	843.4	845.3	844.4
27.5°	122.4	174.8	389.0	651.9	779.2	815.3	822.1	826.9	832.8	834.2
30°	112.4	159.5	381.4	658.0	776.2	803.1	809.8	818.4	829.0	831.9
32.5°	104.7	144.9	369.8	658.8	768.5	788.5	797.5	813.8	829.0	833.4
35°	94.1	123.0	350.6	653.2	751.2	764.6	783.8	810.7	830.9	835.7
37.5°	83.8	107.2	324.5	641.9	728.5	742.5	774.2	806.7	829.2	835.1
40°	76.8	98.0	304.5	631.1	710.8	727.2	766.6	802.1	826.1	832.8
42.5°	71.5	90.3	283.0	617.3	690.9	713.3	757.3	795.2	817.7	822.8
45°	64.4	78.8	248.8	591.7	659.9	693.5	741.6	778.1	799.2	805.0
47.5°	57.6	70.7	213.1	562.5	628.4	669.5	718.7	753.3	772.7	776.5
50°	53.8	65.3	189.2	541.8	606.1	650.3	700.3	734.9	751.2	755.0
52.5°	50.7	60.7	167.0	517.9	583.1	630.3	678.0	709.5	724.3	725.8
55°	46.1	54.8	137.4	481.3	546.6	595.6	641.7	666.6	677.2	681.1
57.5°	43.6	50.3	114.1	441.5	505.5	554.6	596.5	615.9	624.4	625.7
60°	41.3	48.0	101.8	413.1	479.3	525.4	561.9	578.3	586.0	588.8
62.5°	39.0	46.5	92.6	383.9	448.6	493.2	525.1	539.1	545.2	545.8
65°	36.5	44.2	81.7	339.1	400.6	441.9	466.8	478.4	481.3	483.2
67.5°	34.0	41.9	73.8	293.9	351.0	385.2	403.6	413.6	414.2	418.2
70°	31.7	40.3	69.2	263.2	314.1	346.8	362.1	369.8	368.9	369.8
72.5°	30.2	38.0	66.1	231.7	278.8	304.5	318.3	323.7	324.3	324.5
75°	26.9	33.6	61.5	183.5	220.9	243.0	253.6	252.6	255.5	256.5
77.5°	23.2	29.0	50.5	135.3	165.6	180.2	188.7	191.3	190.4	190.6
80°	20.2	25.9	41.3	103.7	128.7	140.2	147.9	149.9	148.9	149.9
82.5°	16.3	21.3	32.1	76.8	96.4	105.7	111.0	111.4	112.0	113.7
85°	9.6	12.5	19.2	42.3	53.8	58.6	62.4	63.4	64.4	64.4
87.5°	3.8	5.4	10.0	17.7	22.3	23.8	23.8	22.3	23.8	21.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)