

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1036196

Luminaire Tested: SQ4R-F-050D-B2750-1D-UNV-W2A_2700K

Issue Date: 8/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P1036196
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P520092)
Test Lab: INNOVATION CENTER
Issue Date: 8/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-F-050D-B2750-1D-UNV-W2A_2700K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 500 LUMENS PER FOOT DOV

Light Source: -
Ballast/Driver: -

Summary

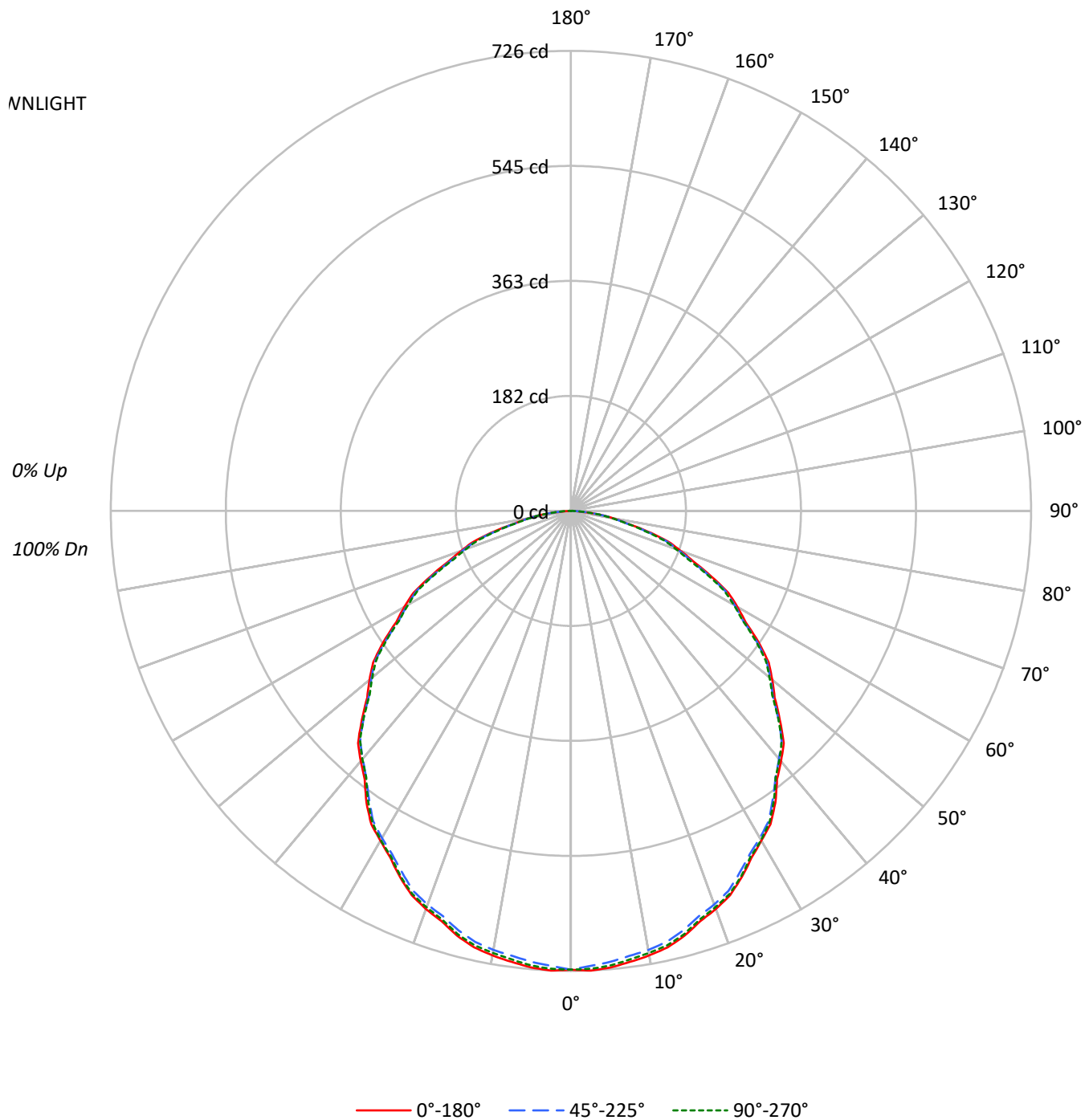
Lumens per Lamp: N/A
Luminaire Lumens: 1976.0 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.8
Input Voltage (V): NR
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: P1036196

CATALOG NUMBER: SQ4R-F-050D-B2750-1D-UNV-W2A_2700K

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
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	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	86	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	61	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6680	6680	6680
5°	6697	6616	6669
10°	6673	6592	6638
15°	6628	6545	6601
20°	6566	6490	6537
25°	6492	6413	6473
30°	6402	6349	6391
35°	6332	6256	6288
40°	6211	6151	6164
45°	6083	6032	6032
50°	5954	5899	5871
55°	5815	5738	5705
60°	5598	5508	5473
65°	5331	5226	5161
70°	4969	4861	4758
75°	4456	4320	4214
80°	3608	3560	3448
85°	2138	2467	2562

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 6096 cd/sqm

TEST NUMBER: P1036196

CATALOG NUMBER: SQ4R-F-050D-B2750-1D-UNV-W2A_2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	3.5
10°-20°	194.5	9.8
20°-30°	292.2	14.8
30°-40°	348.8	17.7
40°-50°	357.4	18.1
50°-60°	318.7	16.1
60°-70°	237.4	12.0
70°-80°	128.9	6.5
80°-90°	29.8	1.5
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°	555.0	28.1
0°-40°	903.8	45.7
0°-60°	1579.9	80.0
0°-90°	1976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	723	722	714	721	720	69
15°	694	692	685	691	691	196
25°	638	636	630	634	636	294
35°	562	560	555	555	558	351
45°	466	467	462	461	462	360
55°	362	362	357	354	355	322
65°	244	243	239	236	236	242
75°	125	124	121	119	118	132
85°	20	22	23	24	24	29
90°	0	0	0	0	0	

TEST NUMBER: P1036196

CATALOG NUMBER: SQ4R-F-050D-B2750-1D-UNV-W2A_2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	724.0	724.0	724.0	724.0	724.0
2.5°	726.2	724.8	718.5	724.0	723.3
5°	723.1	722.1	714.4	721.0	720.1
7.5°	717.8	715.9	708.3	714.9	713.9
10°	712.3	710.4	703.6	709.4	708.5
12.5°	705.4	704.3	696.7	702.5	702.3
15°	693.9	692.0	685.2	691.1	691.1
17.5°	678.8	677.7	671.0	676.6	676.0
20°	668.7	666.9	661.0	665.8	665.8
22.5°	656.3	655.2	649.4	653.4	654.2
25°	637.7	635.9	630.0	633.9	635.9
27.5°	617.2	615.7	610.9	613.3	614.7
30°	600.9	600.9	596.0	597.1	599.9
32.5°	586.2	586.2	580.5	581.6	582.9
35°	562.2	560.3	555.4	555.4	558.3
37.5°	534.2	533.3	530.2	529.6	530.4
40°	515.7	514.7	510.7	511.8	511.8
42.5°	497.1	496.0	492.1	490.8	492.3
45°	466.2	467.2	462.3	461.3	462.3
47.5°	435.9	435.9	431.9	429.2	430.7
50°	414.8	414.8	411.0	409.0	409.0
52.5°	393.1	393.9	389.1	386.5	387.3
55°	361.5	361.5	356.7	353.8	354.7
57.5°	326.6	326.6	321.8	318.9	320.6
60°	303.4	303.4	298.5	295.6	296.6
62.5°	280.1	280.1	275.3	272.4	272.5
65°	244.2	243.3	239.4	236.4	236.4
67.5°	209.7	207.2	204.3	200.5	200.5
70°	184.2	183.1	180.2	176.4	176.4
72.5°	160.9	159.2	156.2	153.2	153.2
75°	125.0	124.0	121.2	119.2	118.2
77.5°	89.6	88.8	88.6	85.9	86.7
80°	67.9	67.9	67.0	64.9	64.9
82.5°	48.4	49.2	47.5	47.1	46.3
85°	20.2	22.2	23.3	24.2	24.2
87.5°	4.0	6.1	5.4	6.2	6.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1036196

CATALOG NUMBER: SQ4R-F-050D-B2750-1D-UNV-W2A_2700K

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	18.18	19.81	18.55	20.12	20.44	18.02	19.65	18.39	19.96	20.28
	3H	19.92	21.39	20.30	21.72	22.08	19.72	21.19	20.09	21.51	21.87
	4H	20.58	21.96	20.98	22.31	22.69	20.35	21.73	20.75	22.08	22.46
	6H	20.95	22.23	21.36	22.60	22.99	20.72	22.00	21.13	22.36	22.75
	8H	21.08	22.30	21.50	22.69	23.09	20.84	22.06	21.26	22.45	22.85
	12H	21.13	22.30	21.56	22.68	23.11	20.90	22.08	21.33	22.46	22.89
4H	2H	18.80	20.19	19.20	20.54	20.91	18.68	20.06	19.08	20.41	20.78
	3H	20.78	21.93	21.19	22.33	22.73	20.60	21.76	21.01	22.16	22.56
	4H	21.54	22.58	21.97	23.00	23.43	21.33	22.38	21.76	22.79	23.23
	6H	22.01	22.93	22.47	23.37	23.82	21.80	22.72	22.26	23.16	23.61
	8H	22.18	23.03	22.64	23.48	23.94	21.96	22.82	22.42	23.26	23.72
	12H	22.26	23.03	22.74	23.51	23.97	22.06	22.83	22.54	23.30	23.77
8H	4H	21.80	22.65	22.26	23.09	23.56	21.61	22.47	22.07	22.91	23.38
	6H	22.38	23.09	22.87	23.57	24.05	22.18	22.89	22.68	23.38	23.86
	8H	22.61	23.24	23.12	23.75	24.24	22.41	23.04	22.92	23.55	24.04
	12H	22.74	23.30	23.25	23.79	24.35	22.56	23.12	23.07	23.62	24.18
12H	4H	21.82	22.58	22.30	23.06	23.53	21.64	22.41	22.12	22.88	23.35
	6H	22.41	23.05	22.92	23.56	24.04	22.23	22.86	22.74	23.37	23.86
	8H	22.70	23.26	23.20	23.75	24.31	22.50	23.06	23.01	23.56	24.12