

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: P1036365

Luminaire Tested: SQ4R-WB-050D-B50-1D-UNV

Issue Date: 8/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P1036365
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P519276)
Test Lab: INNOVATION CENTER
Issue Date: 8/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-WB-050D-B50-1D-UNV
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 500 LUMENS PER FOOT DOV

Light Source: -
Ballast/Driver: -

Summary

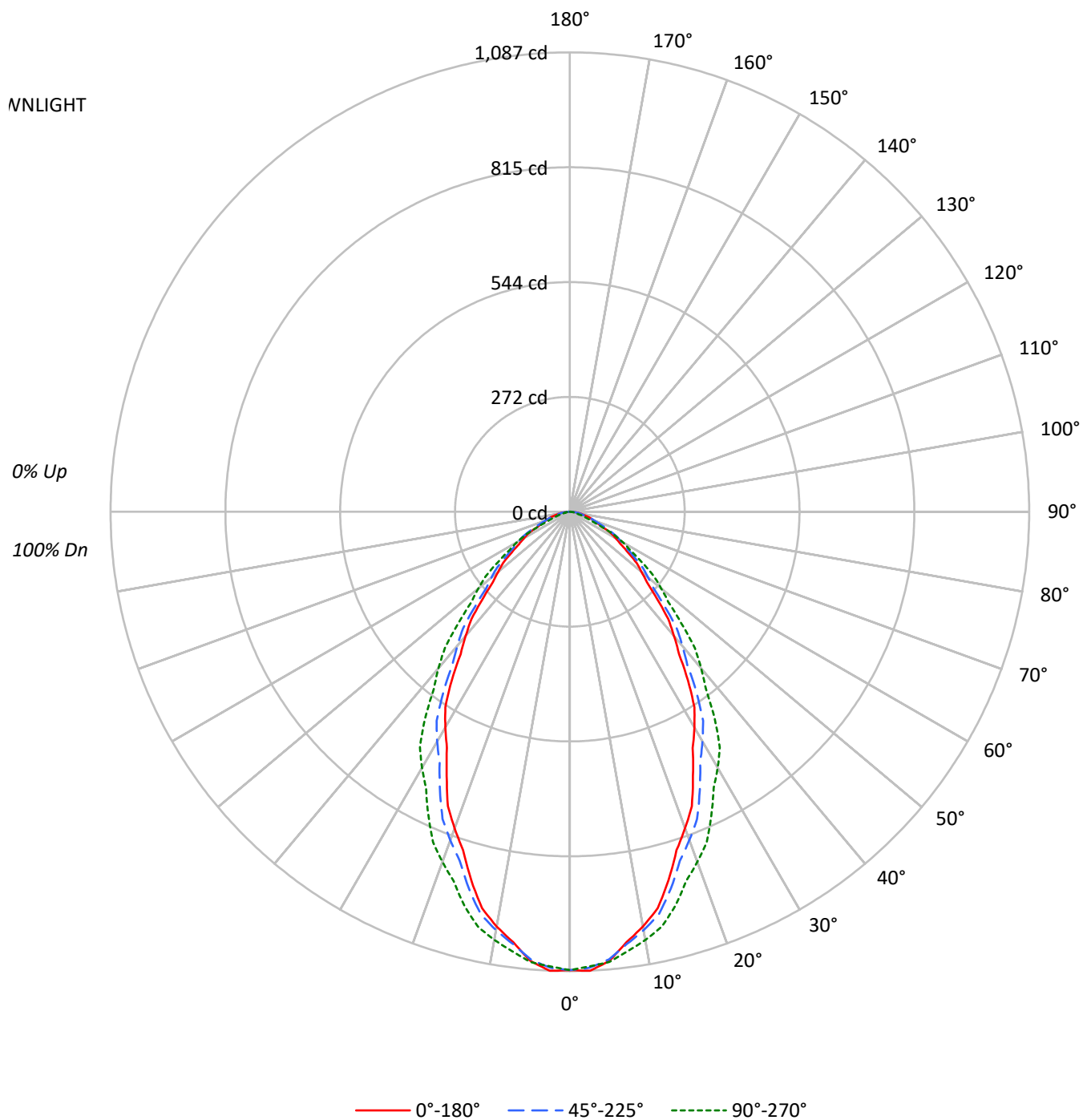
Lumens per Lamp: N/A
Luminaire Lumens: 1580.4 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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

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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
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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89		
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78		
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	74	68	64	71	67	64	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	56	52	61	56	52	50		
7	73	61	53	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10006	10006	10006
5°	9881	9846	9903
10°	9336	9420	9639
15°	8618	8819	9214
20°	7826	8120	8658
25°	7020	7403	8067
30°	6277	6687	7452
35°	5487	5885	6727
40°	4619	4986	5823
45°	3813	4141	4862
50°	3182	3469	4051
55°	2701	2977	3344
60°	2310	2581	2670
65°	1840	2170	1722
70°	1632	1694	1052
75°	1511	1376	645
80°	1392	1265	558
85°	1249	1154	455

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4862 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	6.3
10°-20°	258.8	16.4
20°-30°	335.1	21.2
30°-40°	328.2	20.8
40°-50°	251.2	15.9
50°-60°	167.4	10.6
60°-70°	91.3	5.8
70°-80°	38.1	2.4
80°-90°	10.8	0.7
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°	693.4	43.9
0°-40°	1021.6	64.6
0°-60°	1440.2	91.1
0°-90°	1580.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1580.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1084	1084	1084	1084	1084	
5°	1067	1056	1063	1066	1069	99
15°	902	899	923	948	965	252
25°	690	692	727	759	792	317
35°	487	490	522	558	597	303
45°	292	298	317	341	373	228
55°	168	175	185	192	208	152
65°	84	91	99	87	79	88
75°	42	42	39	26	18	45
85°	12	12	11	7	4	13
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1084.5	1084.5	1084.5	1084.5	1084.5
2.5°	1087.2	1077.5	1080.0	1079.9	1076.8
5°	1066.9	1056.2	1063.1	1065.6	1069.3
7.5°	1027.3	1019.2	1031.8	1041.1	1048.7
10°	996.5	989.5	1005.5	1019.1	1028.9
12.5°	960.8	954.8	974.8	992.9	1005.6
15°	902.2	899.0	923.3	948.3	964.6
17.5°	839.8	838.2	866.0	895.3	916.0
20°	797.1	796.7	827.0	857.7	881.8
22.5°	754.1	755.1	787.0	818.8	846.4
25°	689.6	691.5	727.2	758.9	792.4
27.5°	629.9	630.7	667.6	701.1	736.9
30°	589.2	591.4	627.7	662.3	699.5
32.5°	548.5	551.1	586.6	622.3	660.3
35°	487.2	489.6	522.5	557.7	597.3
37.5°	424.2	427.5	456.7	489.8	528.8
40°	383.5	388.2	414.0	445.4	483.5
42.5°	344.3	350.2	374.1	403.8	438.1
45°	292.2	297.8	317.4	341.4	372.6
47.5°	247.2	253.7	268.8	289.5	316.1
50°	221.7	227.8	241.7	257.0	282.2
52.5°	199.3	205.4	217.7	229.5	251.0
55°	167.9	175.0	185.1	192.2	207.9
57.5°	142.3	149.0	157.1	160.2	169.7
60°	125.2	132.6	139.9	139.5	144.7
62.5°	109.6	116.0	123.1	118.1	118.4
65°	84.3	91.2	99.4	86.9	78.9
67.5°	68.1	69.5	78.0	60.6	51.2
70°	60.5	60.5	62.8	46.9	39.0
72.5°	53.2	53.2	51.0	38.2	29.8
75°	42.4	42.4	38.6	26.5	18.1
77.5°	32.7	32.3	29.5	19.7	13.1
80°	26.2	26.2	23.8	15.6	10.5
82.5°	20.5	20.5	18.5	12.2	7.7
85°	11.8	11.8	10.9	7.1	4.3
87.5°	4.2	4.2	3.8	2.3	1.9
90°	0.0	0.0	0.0	0.0	0.0

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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	13.75	15.13	14.12	15.44	15.75	14.37	15.75	14.74	16.06	16.38
	3H	14.73	15.95	15.11	16.28	16.64	14.83	16.06	15.21	16.38	16.75
	4H	15.17	16.31	15.57	16.66	17.04	14.91	16.05	15.31	16.40	16.78
	6H	15.48	16.52	15.89	16.89	17.29	14.92	15.97	15.34	16.34	16.73
	8H	15.61	16.60	16.03	16.99	17.40	14.92	15.91	15.35	16.30	16.71
	12H	15.69	16.64	16.12	17.02	17.45	14.90	15.85	15.33	16.24	16.67
4H	2H	14.24	15.38	14.64	15.73	16.11	14.76	15.90	15.16	16.25	16.63
	3H	15.41	16.34	15.82	16.75	17.15	15.39	16.33	15.80	16.73	17.13
	4H	15.94	16.78	16.38	17.20	17.64	15.52	16.36	15.96	16.78	17.22
	6H	16.36	17.09	16.83	17.53	18.00	15.59	16.32	16.06	16.76	17.23
	8H	16.54	17.22	17.01	17.66	18.13	15.60	16.28	16.07	16.73	17.20
	12H	16.67	17.27	17.15	17.75	18.22	15.60	16.20	16.09	16.68	17.16
8H	4H	16.05	16.73	16.52	17.17	17.64	15.67	16.35	16.14	16.79	17.26
	6H	16.59	17.14	17.09	17.64	18.12	15.82	16.37	16.32	16.87	17.35
	8H	16.85	17.35	17.37	17.86	18.35	15.87	16.37	16.39	16.88	17.37
	12H	17.06	17.50	17.57	17.99	18.56	15.91	16.35	16.42	16.84	17.41
12H	4H	16.03	16.63	16.52	17.11	17.59	15.68	16.28	16.16	16.76	17.23
	6H	16.59	17.09	17.11	17.61	18.10	15.86	16.35	16.38	16.87	17.36
	8H	16.91	17.35	17.43	17.85	18.42	15.96	16.40	16.48	16.90	17.47