

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: P1036363

Luminaire Tested: SQ4R-WB-050D-B40-1D-UNV

Issue Date: 8/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P1036363
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-B40-1D-UNV
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 500 LUMENS PER FOOT DOV

Light Source: -
Ballast/Driver: -

Summary

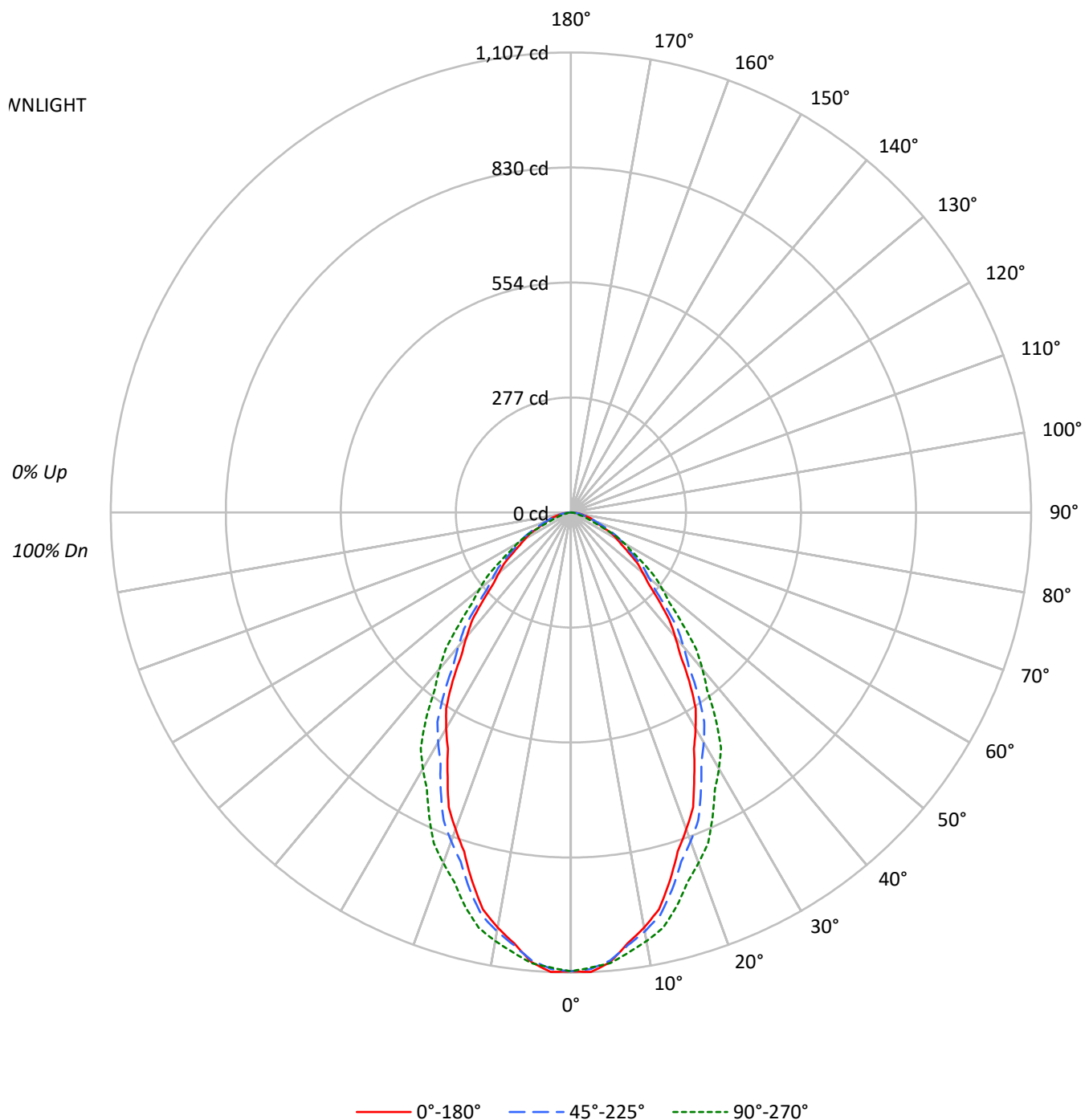
Lumens per Lamp: N/A
Luminaire Lumens: 1608.6 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	104	101	109	105	102	99	101	99	96		97	95	93		94
2	103	97	91	87	101	95	90	86	92	87	84		88	85	82		85
3	96	87	81	75	94	86	80	75	83	78	73		80	76	72		78
4	89	79	72	66	87	78	71	66	76	70	65		74	68	64		71
5	83	72	65	59	81	71	64	59	69	63	58		67	62	58		66
6	78	66	59	53	76	65	58	53	64	57	53		62	56	52		61
7	73	61	53	48	71	60	53	48	59	52	48		58	52	47		56
8	68	57	49	44	67	56	49	44	55	48	44		53	48	43		52
9	64	53	45	40	63	52	45	40	51	45	40		50	44	40		49
10	61	49	42	37	60	48	42	37	48	41	37		47	41	37		46

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10186	10186	10186
5°	10058	10023	10081
10°	9503	9589	9812
15°	8772	8977	9379
20°	7967	8265	8812
25°	7145	7535	8211
30°	6390	6807	7585
35°	5587	5990	6848
40°	4701	5075	5928
45°	3880	4216	4949
50°	3240	3531	4122
55°	2749	3030	3404
60°	2351	2629	2718
65°	1873	2209	1753
70°	1659	1726	1071
75°	1536	1397	656
80°	1413	1286	569
85°	1270	1175	466

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4949 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.3	6.3
10°-20°	263.4	16.4
20°-30°	341.1	21.2
30°-40°	334.1	20.8
40°-50°	255.7	15.9
50°-60°	170.4	10.6
60°-70°	93.0	5.8
70°-80°	38.7	2.4
80°-90°	11.0	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°	705.8	43.9
0°-40°	1039.8	64.6
0°-60°	1465.9	91.1
0°-90°	1608.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1608.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1086	1075	1082	1085	1088	101
15°	918	915	940	965	982	256
25°	702	704	740	772	807	323
35°	496	498	532	568	608	308
45°	297	303	323	348	379	232
55°	171	178	188	196	212	155
65°	86	93	101	88	80	89
75°	43	43	39	27	18	46
85°	12	12	11	7	4	14
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1104.0	1104.0	1104.0	1104.0	1104.0
2.5°	1106.7	1096.8	1099.3	1099.2	1096.1
5°	1086.0	1075.1	1082.2	1084.7	1088.5
7.5°	1045.7	1037.5	1050.3	1059.8	1067.4
10°	1014.3	1007.2	1023.5	1037.4	1047.3
12.5°	978.0	971.9	992.2	1010.6	1023.6
15°	918.4	915.1	939.8	965.3	981.9
17.5°	854.8	853.2	881.5	911.3	932.4
20°	811.4	810.9	841.8	873.0	897.5
22.5°	767.6	768.6	801.1	833.5	861.6
25°	701.9	703.8	740.2	772.4	806.6
27.5°	641.1	642.0	679.5	713.6	750.1
30°	599.8	602.0	638.9	674.2	712.0
32.5°	558.3	561.0	597.1	633.5	672.1
35°	496.0	498.4	531.8	567.7	608.0
37.5°	431.8	435.1	464.9	498.6	538.3
40°	390.3	395.2	421.4	453.3	492.2
42.5°	350.5	356.4	380.7	411.0	446.0
45°	297.4	303.1	323.1	347.5	379.3
47.5°	251.7	258.3	273.6	294.7	321.7
50°	225.7	231.9	246.0	261.6	287.2
52.5°	202.8	209.0	221.6	233.6	255.5
55°	170.9	178.1	188.4	195.7	211.6
57.5°	144.9	151.7	159.9	163.1	172.8
60°	127.4	135.0	142.5	142.0	147.3
62.5°	111.5	118.0	125.3	120.2	120.6
65°	85.8	92.8	101.2	88.5	80.3
67.5°	69.3	70.7	79.4	61.7	52.1
70°	61.5	61.5	64.0	47.8	39.7
72.5°	54.2	54.2	51.9	38.9	30.3
75°	43.1	43.1	39.2	26.9	18.4
77.5°	33.2	32.9	30.0	20.1	13.4
80°	26.6	26.6	24.2	15.9	10.7
82.5°	20.8	20.8	18.8	12.4	7.8
85°	12.0	12.0	11.1	7.3	4.4
87.5°	4.3	4.3	3.9	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	13.81	15.19	14.18	15.50	15.82	14.44	15.81	14.80	16.13	16.44
	3H	14.79	16.01	15.17	16.34	16.70	14.90	16.12	15.27	16.45	16.81
	4H	15.23	16.37	15.63	16.72	17.10	14.97	16.11	15.38	16.46	16.85
	6H	15.53	16.58	15.95	16.95	17.35	14.99	16.04	15.40	16.40	16.80
	8H	15.66	16.66	16.09	17.05	17.45	14.98	15.98	15.41	16.37	16.77
	12H	15.75	16.70	16.18	17.08	17.51	14.96	15.92	15.40	16.30	16.73
4H	2H	14.30	15.44	14.71	15.80	16.18	14.82	15.96	15.22	16.31	16.69
	3H	15.47	16.41	15.88	16.81	17.21	15.45	16.39	15.87	16.79	17.20
	4H	16.00	16.84	16.44	17.26	17.70	15.59	16.42	16.02	16.84	17.28
	6H	16.42	17.15	16.89	17.59	18.06	15.66	16.38	16.12	16.83	17.29
	8H	16.60	17.28	17.07	17.72	18.19	15.67	16.34	16.13	16.79	17.26
	12H	16.72	17.32	17.21	17.81	18.28	15.67	16.26	16.15	16.75	17.22
8H	4H	16.11	16.79	16.58	17.23	17.70	15.73	16.41	16.20	16.85	17.32
	6H	16.65	17.20	17.15	17.70	18.18	15.88	16.43	16.38	16.93	17.41
	8H	16.91	17.41	17.43	17.92	18.41	15.93	16.43	16.45	16.94	17.44
	12H	17.11	17.55	17.63	18.05	18.62	15.97	16.41	16.48	16.90	17.47
12H	4H	16.09	16.69	16.58	17.18	17.65	15.74	16.34	16.22	16.82	17.29
	6H	16.65	17.15	17.17	17.66	18.16	15.92	16.42	16.44	16.93	17.42
	8H	16.97	17.41	17.48	17.90	18.47	16.02	16.46	16.54	16.96	17.53