

Signify Classified - Internal
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: P686289

Luminaire Tested: SQ4R-F-050D-93050-1-UNV-STD-W-4_5000K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686289
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-21)
Test Lab: INNOVATION CENTER
Issue Date: 5/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-F-050D-93050-1-UNV-STD-W-4_5000K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 3000K-5000K
500 LUMENS PER FOOT
Light Source: 3000K AND 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

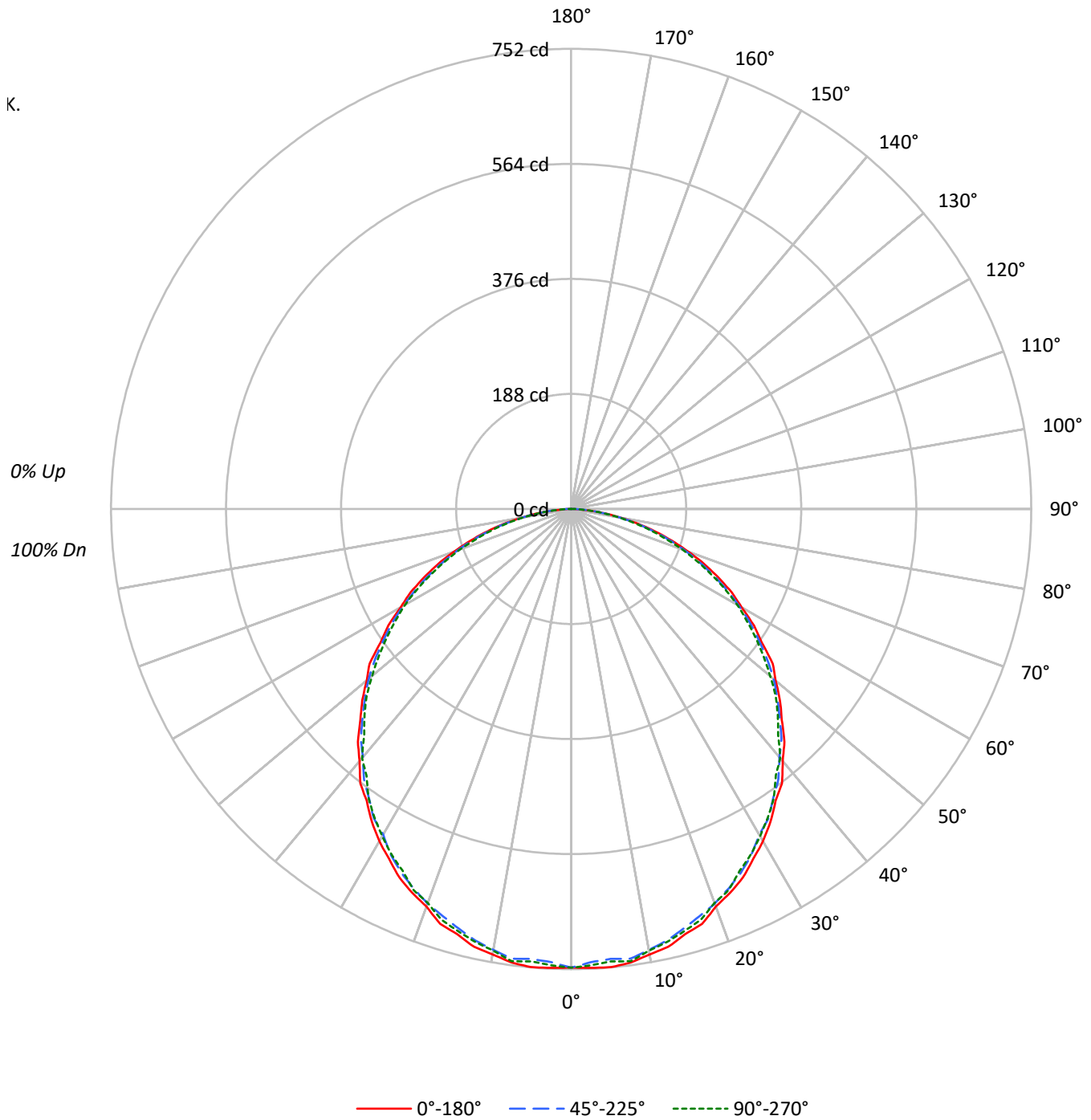
Lumens per Lamp: N/A
Luminaire Lumens: 2085.2 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 21.2
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7216	7216	7216
5°	7264	7133	7173
10°	7225	7154	7165
15°	7170	7077	7118
20°	7084	7030	7019
25°	7058	6969	6925
30°	6970	6831	6867
35°	6845	6771	6784
40°	6758	6653	6680
45°	6629	6558	6501
50°	6530	6467	6359
55°	6377	6289	6185
60°	6196	6096	6036
65°	6053	5841	5747
70°	5728	5551	5435
75°	5289	5137	4981
80°	4546	4491	4374
85°	3325	3435	3325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 6656 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	3.4
10°-20°	201.9	9.7
20°-30°	303.2	14.5
30°-40°	362.2	17.4
40°-50°	372.7	17.9
50°-60°	335.9	16.1
60°-70°	255.2	12.2
70°-80°	145.8	7.0
80°-90°	37.5	1.8
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°	576.0	27.6
0°-40°	938.2	45.0
0°-60°	1646.8	79.0
0°-90°	2085.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2085.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	750	750	750	750	750	
5°	752	746	738	746	742	71
15°	719	718	710	717	714	203
25°	664	657	656	657	652	305
35°	582	586	576	574	577	366
45°	487	489	482	479	478	377
55°	380	384	375	372	368	342
65°	266	264	256	252	252	262
75°	142	140	138	135	134	150
85°	30	31	31	30	30	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	749.5	749.5	749.5	749.5	749.5
2.5°	750.5	750.5	741.2	751.6	746.4
5°	751.6	746.4	738.1	746.4	742.2
7.5°	747.4	740.1	741.2	742.2	745.3
10°	739.1	736.0	731.8	736.0	732.9
12.5°	732.9	732.9	722.5	726.7	724.6
15°	719.4	718.3	710.0	717.3	714.2
17.5°	711.1	705.9	697.6	702.8	703.8
20°	691.4	692.4	686.2	691.4	685.1
22.5°	678.9	683.1	671.6	677.9	673.7
25°	664.4	657.1	656.1	657.1	651.9
27.5°	644.6	643.6	637.4	635.3	636.3
30°	627.0	629.1	614.5	614.5	617.7
32.5°	606.2	605.2	600.0	594.8	597.9
35°	582.4	585.5	576.1	574.1	577.2
37.5°	565.7	561.6	556.4	553.3	549.1
40°	537.7	539.8	529.4	529.4	531.5
42.5°	515.9	514.9	508.7	504.5	500.4
45°	486.9	488.9	481.7	478.6	477.5
47.5°	463.0	461.9	456.8	450.5	453.6
50°	436.0	435.0	431.8	425.6	424.6
52.5°	415.2	411.1	403.8	398.6	396.5
55°	379.9	384.1	374.7	371.6	368.5
57.5°	354.0	351.9	346.7	341.5	340.5
60°	321.8	321.8	316.6	313.5	313.5
62.5°	295.9	292.7	286.5	284.4	283.4
65°	265.7	263.7	256.4	252.3	252.3
67.5°	235.6	233.6	226.3	222.1	222.1
70°	203.5	201.4	197.2	194.1	193.1
72.5°	172.3	171.3	167.1	164.0	161.9
75°	142.2	140.1	138.1	134.9	133.9
77.5°	113.1	111.1	109.0	105.9	104.8
80°	82.0	81.0	81.0	77.9	78.9
82.5°	56.1	56.1	55.0	52.9	54.0
85°	30.1	31.1	31.1	30.1	30.1
87.5°	10.4	12.5	13.5	12.5	12.5
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	18.64	20.28	19.00	20.59	20.91	18.45	20.09	18.81	20.40	20.72
	3H	20.48	21.96	20.86	22.29	22.65	20.24	21.72	20.61	22.04	22.40
	4H	21.16	22.56	21.56	22.90	23.28	20.89	22.29	21.29	22.64	23.01
	6H	21.64	22.93	22.05	23.30	23.69	21.37	22.66	21.78	23.02	23.42
	8H	21.78	23.02	22.20	23.40	23.80	21.51	22.75	21.93	23.14	23.53
	12H	21.86	23.04	22.29	23.43	23.85	21.59	22.78	22.02	23.16	23.59
4H	2H	19.25	20.64	19.65	20.99	21.37	19.10	20.50	19.50	20.84	21.22
	3H	21.31	22.48	21.72	22.88	23.28	21.11	22.28	21.51	22.67	23.07
	4H	22.12	23.18	22.55	23.59	24.03	21.89	22.95	22.32	23.36	23.80
	6H	22.72	23.65	23.17	24.09	24.54	22.48	23.41	22.93	23.85	24.30
	8H	22.91	23.77	23.37	24.21	24.68	22.67	23.53	23.13	23.98	24.44
	12H	23.02	23.80	23.50	24.28	24.75	22.79	23.57	23.27	24.04	24.51
8H	4H	22.42	23.28	22.88	23.72	24.19	22.21	23.08	22.67	23.52	23.99
	6H	23.13	23.85	23.62	24.34	24.81	22.92	23.64	23.41	24.13	24.60
	8H	23.38	24.03	23.89	24.54	25.02	23.17	23.82	23.68	24.32	24.81
	12H	23.56	24.13	24.07	24.62	25.18	23.35	23.92	23.86	24.41	24.97
12H	4H	22.44	23.22	22.92	23.70	24.17	22.25	23.03	22.73	23.50	23.97
	6H	23.18	23.83	23.69	24.33	24.82	22.97	23.62	23.48	24.13	24.61
	8H	23.49	24.06	23.99	24.55	25.11	23.28	23.85	23.79	24.34	24.90