

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: P686286

Luminaire Tested: SQ4R-F-050D-93050-1-UNV-STD-W-4_3500K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686286
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_3500K
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

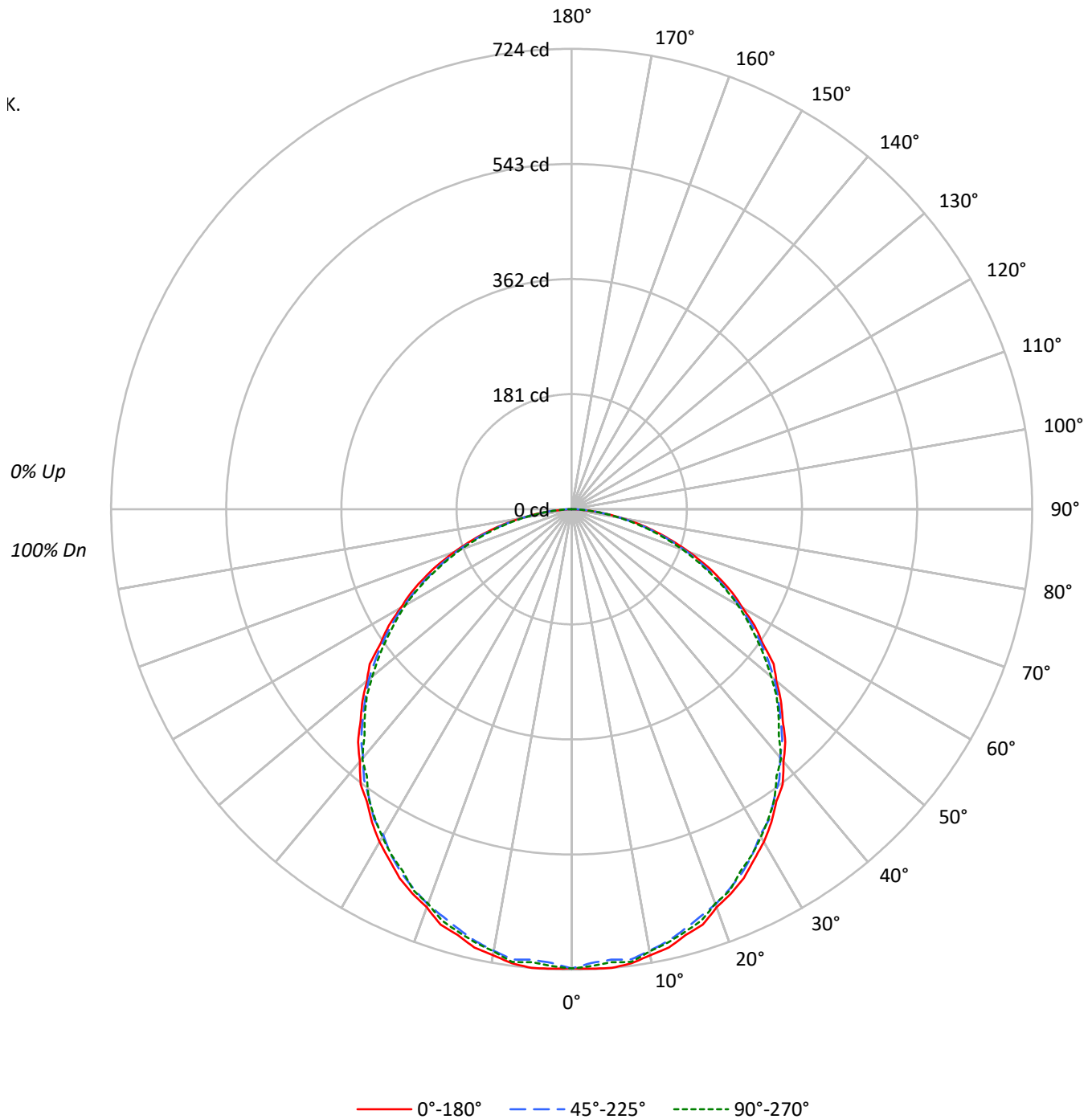
Lumens per Lamp: N/A
Luminaire Lumens: 2008.8 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 21.3
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	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					100			
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	84					84			
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70					70			
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59					59			
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50					50			
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43					43			
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38					38			
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27					27			
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6951	6951	6951
5°	6997	6871	6910
10°	6960	6892	6902
15°	6907	6817	6857
20°	6823	6772	6762
25°	6798	6713	6671
30°	6714	6581	6614
35°	6593	6523	6535
40°	6510	6409	6435
45°	6385	6317	6263
50°	6291	6231	6126
55°	6143	6059	5959
60°	5969	5873	5815
65°	5832	5627	5536
70°	5517	5348	5236
75°	5096	4947	4798
80°	4380	4324	4214
85°	3203	3314	3203

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 6413 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	3.4
10°-20°	194.5	9.7
20°-30°	292.0	14.5
30°-40°	349.0	17.4
40°-50°	359.1	17.9
50°-60°	323.6	16.1
60°-70°	245.8	12.2
70°-80°	140.4	7.0
80°-90°	36.1	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°	554.8	27.6
0°-40°	903.8	45.0
0°-60°	1586.4	79.0
0°-90°	2008.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2008.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	722	722	722	722	722	
5°	724	719	711	719	715	69
15°	693	692	684	691	688	196
25°	640	633	632	633	628	294
35°	561	564	555	553	556	353
45°	469	471	464	461	460	363
55°	366	370	361	358	355	329
65°	256	254	247	243	243	253
75°	137	135	133	130	129	145
85°	29	30	30	29	29	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	722	722	722	722	722
2.5°	723	723	714	724	719
5°	724	719	711	719	715
7.5°	720	713	714	715	718
10°	712	709	705	709	706
12.5°	706	706	696	700	698
15°	693	692	684	691	688
17.5°	685	680	672	677	678
20°	666	667	661	666	660
22.5°	654	658	647	653	649
25°	640	633	632	633	628
27.5°	621	620	614	612	613
30°	604	606	592	592	595
32.5°	584	583	578	573	576
35°	561	564	555	553	556
37.5°	545	541	536	533	529
40°	518	520	510	510	512
42.5°	497	496	490	486	482
45°	469	471	464	461	460
47.5°	446	445	440	434	437
50°	420	419	416	410	409
52.5°	400	396	389	384	382
55°	366	370	361	358	355
57.5°	341	339	334	329	328
60°	310	310	305	302	302
62.5°	285	282	276	274	273
65°	256	254	247	243	243
67.5°	227	225	218	214	214
70°	196	194	190	187	186
72.5°	166	165	161	158	156
75°	137	135	133	130	129
77.5°	109	107	105	102	101
80°	79	78	78	75	76
82.5°	54	54	53	51	52
85°	29	30	30	29	29
87.5°	10	12	13	12	12
90°	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	18.51	20.15	18.87	20.46	20.78	18.32	19.96	18.69	20.27	20.59
	3H	20.35	21.83	20.73	22.16	22.52	20.11	21.59	20.48	21.91	22.27
	4H	21.03	22.43	21.43	22.77	23.15	20.76	22.16	21.16	22.51	22.88
	6H	21.51	22.80	21.92	23.17	23.56	21.24	22.53	21.65	22.90	23.29
	8H	21.65	22.89	22.07	23.28	23.67	21.38	22.62	21.80	23.01	23.40
	12H	21.73	22.91	22.16	23.30	23.72	21.46	22.65	21.89	23.03	23.46
4H	2H	19.12	20.51	19.52	20.86	21.24	18.97	20.37	19.37	20.71	21.09
	3H	21.18	22.35	21.59	22.75	23.15	20.98	22.15	21.39	22.54	22.94
	4H	21.99	23.05	22.42	23.46	23.90	21.76	22.82	22.19	23.23	23.67
	6H	22.59	23.52	23.04	23.96	24.41	22.35	23.28	22.80	23.72	24.17
	8H	22.78	23.64	23.24	24.08	24.55	22.54	23.40	23.00	23.85	24.31
	12H	22.89	23.67	23.37	24.15	24.62	22.66	23.44	23.14	23.91	24.38
8H	4H	22.29	23.15	22.75	23.60	24.06	22.09	22.95	22.55	23.39	23.86
	6H	23.00	23.72	23.49	24.21	24.68	22.79	23.51	23.28	24.00	24.47
	8H	23.25	23.90	23.76	24.41	24.89	23.04	23.69	23.55	24.19	24.68
	12H	23.43	24.00	23.94	24.49	25.05	23.22	23.79	23.73	24.28	24.84
12H	4H	22.31	23.09	22.79	23.57	24.04	22.12	22.90	22.60	23.37	23.84
	6H	23.05	23.70	23.56	24.20	24.69	22.84	23.49	23.35	24.00	24.48
	8H	23.36	23.93	23.86	24.42	24.98	23.15	23.72	23.66	24.21	24.77