

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: P686301

Luminaire Tested: SQ4R-F-075D-93050-1-UNV-STD-W-4_4500K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686301
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-075D-93050-1-UNV-STD-W-4_4500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 3000K-5000K
750 LUMENS PER FOOT
Light Source: 3000K AND 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

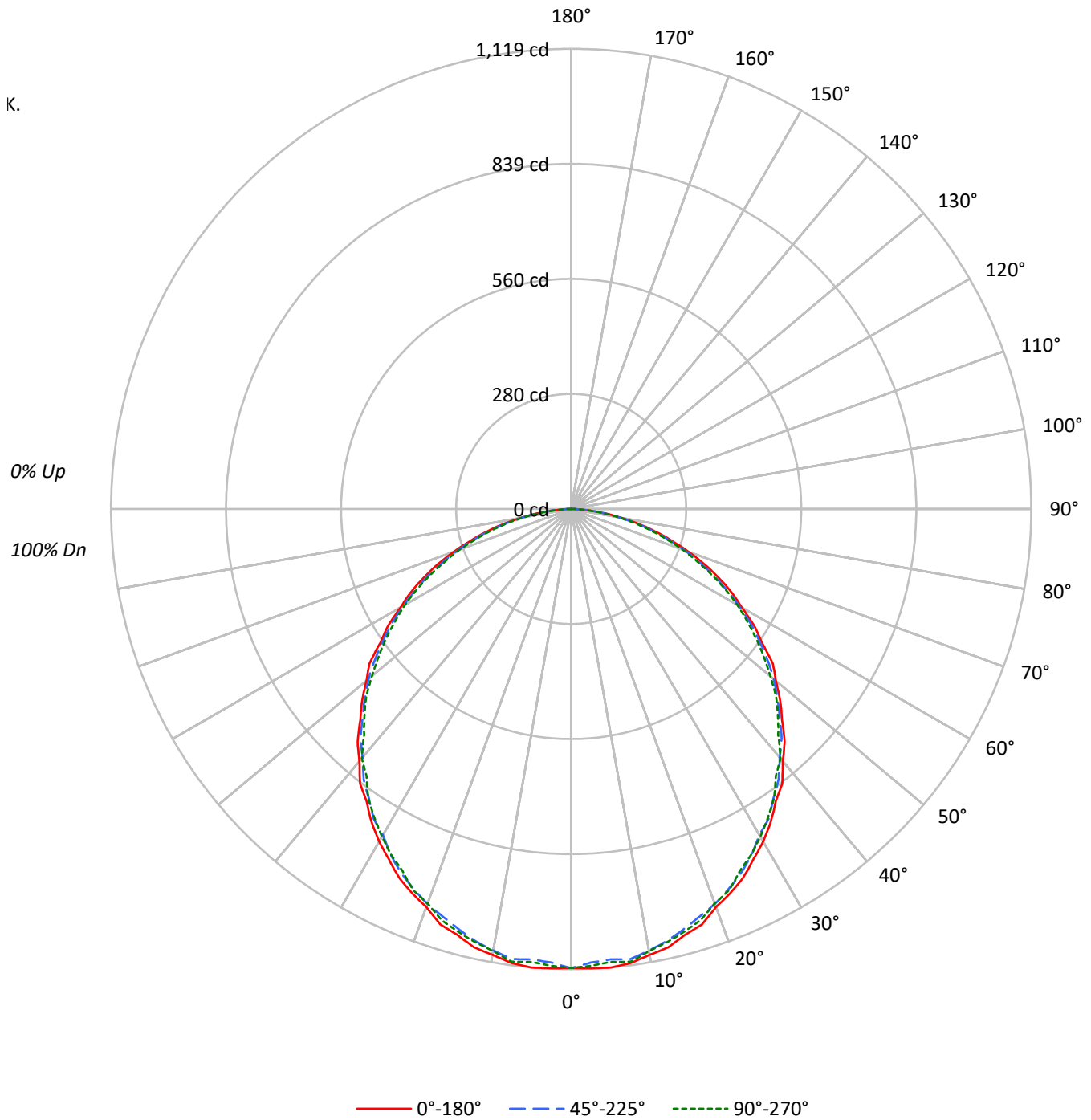
Lumens per Lamp: N/A
Luminaire Lumens: 3105.9 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 33
Input Voltage (V): 120
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	0
RW	70	50	30	10	70	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°	10747	10747	10747
5°	10818	10624	10684
10°	10762	10657	10671
15°	10680	10541	10603
20°	10551	10471	10455
25°	10512	10380	10315
30°	10382	10175	10227
35°	10194	10085	10104
40°	10065	9911	9949
45°	9874	9767	9683
50°	9726	9634	9472
55°	9498	9369	9213
60°	9229	9081	8990
65°	9016	8700	8559
70°	8532	8270	8095
75°	7878	7648	7421
80°	6769	6686	6514
85°	4949	5125	4949

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 9916 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.5	3.4
10°-20°	300.8	9.7
20°-30°	451.6	14.5
30°-40°	539.5	17.4
40°-50°	555.2	17.9
50°-60°	500.3	16.1
60°-70°	380.1	12.2
70°-80°	217.1	7.0
80°-90°	55.9	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°	857.9	27.6
0°-40°	1397.4	45.0
0°-60°	2452.9	79.0
0°-90°	3105.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3105.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1116	1116	1116	1116	1116	
5°	1119	1112	1099	1112	1106	106
15°	1072	1070	1058	1068	1064	303
25°	990	979	977	979	971	455
35°	867	872	858	855	860	545
45°	725	728	717	713	711	561
55°	566	572	558	554	549	509
65°	396	393	382	376	376	391
75°	212	209	206	201	200	224
85°	45	46	46	45	45	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1116.3	1116.3	1116.3	1116.3	1116.3
2.5°	1117.9	1117.9	1104.0	1119.4	1111.7
5°	1119.4	1111.7	1099.3	1111.7	1105.5
7.5°	1113.3	1102.4	1104.0	1105.5	1110.2
10°	1100.9	1096.2	1090.1	1096.2	1091.6
12.5°	1091.6	1091.6	1076.1	1082.3	1079.2
15°	1071.5	1070.0	1057.6	1068.4	1063.8
17.5°	1059.1	1051.4	1039.0	1046.8	1048.3
20°	1029.8	1031.3	1022.0	1029.8	1020.5
22.5°	1011.2	1017.4	1000.4	1009.7	1003.5
25°	989.6	978.7	977.2	978.7	971.0
27.5°	960.2	958.6	949.4	946.3	947.8
30°	933.9	937.0	915.3	915.3	920.0
32.5°	903.0	901.4	893.7	886.0	890.6
35°	867.4	872.0	858.1	855.0	859.7
37.5°	842.7	836.5	828.8	824.1	817.9
40°	800.9	804.0	788.6	788.6	791.6
42.5°	768.5	766.9	757.6	751.4	745.3
45°	725.2	728.3	717.4	712.8	711.2
47.5°	689.6	688.1	680.3	671.0	675.7
50°	649.4	647.9	643.2	633.9	632.4
52.5°	618.5	612.3	601.5	593.7	590.6
55°	565.9	572.1	558.2	553.5	548.9
57.5°	527.2	524.2	516.4	508.7	507.1
60°	479.3	479.3	471.6	466.9	466.9
62.5°	440.7	436.0	426.7	423.7	422.1
65°	395.8	392.7	381.9	375.7	375.7
67.5°	351.0	347.9	337.1	330.9	330.9
70°	303.1	300.0	293.8	289.1	287.6
72.5°	256.7	255.1	248.9	244.3	241.2
75°	211.8	208.7	205.6	201.0	199.5
77.5°	168.5	165.4	162.3	157.7	156.2
80°	122.1	120.6	120.6	116.0	117.5
82.5°	83.5	83.5	81.9	78.9	80.4
85°	44.8	46.4	46.4	44.8	44.8
87.5°	15.5	18.6	20.1	18.6	18.6
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	20.02	21.66	20.39	21.98	22.29	19.83	21.47	20.20	21.79	22.10
	3H	21.86	23.35	22.24	23.67	24.03	21.62	23.10	22.00	23.43	23.79
	4H	22.54	23.94	22.94	24.29	24.66	22.28	23.68	22.68	24.02	24.40
	6H	23.02	24.32	23.43	24.68	25.07	22.75	24.04	23.16	24.41	24.80
	8H	23.16	24.40	23.59	24.79	25.19	22.89	24.13	23.32	24.52	24.92
	12H	23.24	24.43	23.67	24.81	25.24	22.98	24.16	23.41	24.54	24.97
4H	2H	20.63	22.03	21.03	22.38	22.75	20.48	21.88	20.88	22.23	22.60
	3H	22.69	23.87	23.10	24.26	24.66	22.49	23.66	22.90	24.06	24.46
	4H	23.50	24.56	23.93	24.97	25.41	23.27	24.33	23.71	24.75	25.18
	6H	24.10	25.03	24.56	25.47	25.93	23.86	24.79	24.32	25.23	25.69
	8H	24.29	25.16	24.75	25.60	26.06	24.05	24.92	24.51	25.36	25.82
	12H	24.41	25.19	24.89	25.66	26.13	24.17	24.95	24.65	25.43	25.90
8H	4H	23.80	24.67	24.26	25.11	25.57	23.60	24.47	24.06	24.91	25.37
	6H	24.51	25.23	25.01	25.72	26.20	24.30	25.02	24.79	25.51	25.98
	8H	24.77	25.41	25.28	25.92	26.41	24.55	25.20	25.06	25.71	26.19
	12H	24.95	25.52	25.45	26.01	26.57	24.74	25.31	25.24	25.80	26.36
12H	4H	23.83	24.61	24.31	25.08	25.55	23.63	24.41	24.11	24.89	25.36
	6H	24.56	25.21	25.07	25.72	26.20	24.36	25.00	24.87	25.51	26.00
	8H	24.87	25.44	25.38	25.93	26.49	24.66	25.24	25.17	25.73	26.29