

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: P1036180

Luminaire Tested: SQ4R-BB-100D-B2750-1D-UNV-W2A_2700K

Issue Date: 8/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P1036180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P518604)
Test Lab: INNOVATION CENTER
Issue Date: 8/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-BB-100D-B2750-1D-UNV-W2A_2700K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 1000 LUMENS PER FOOT DC

Light Source: -
Ballast/Driver: -

Summary

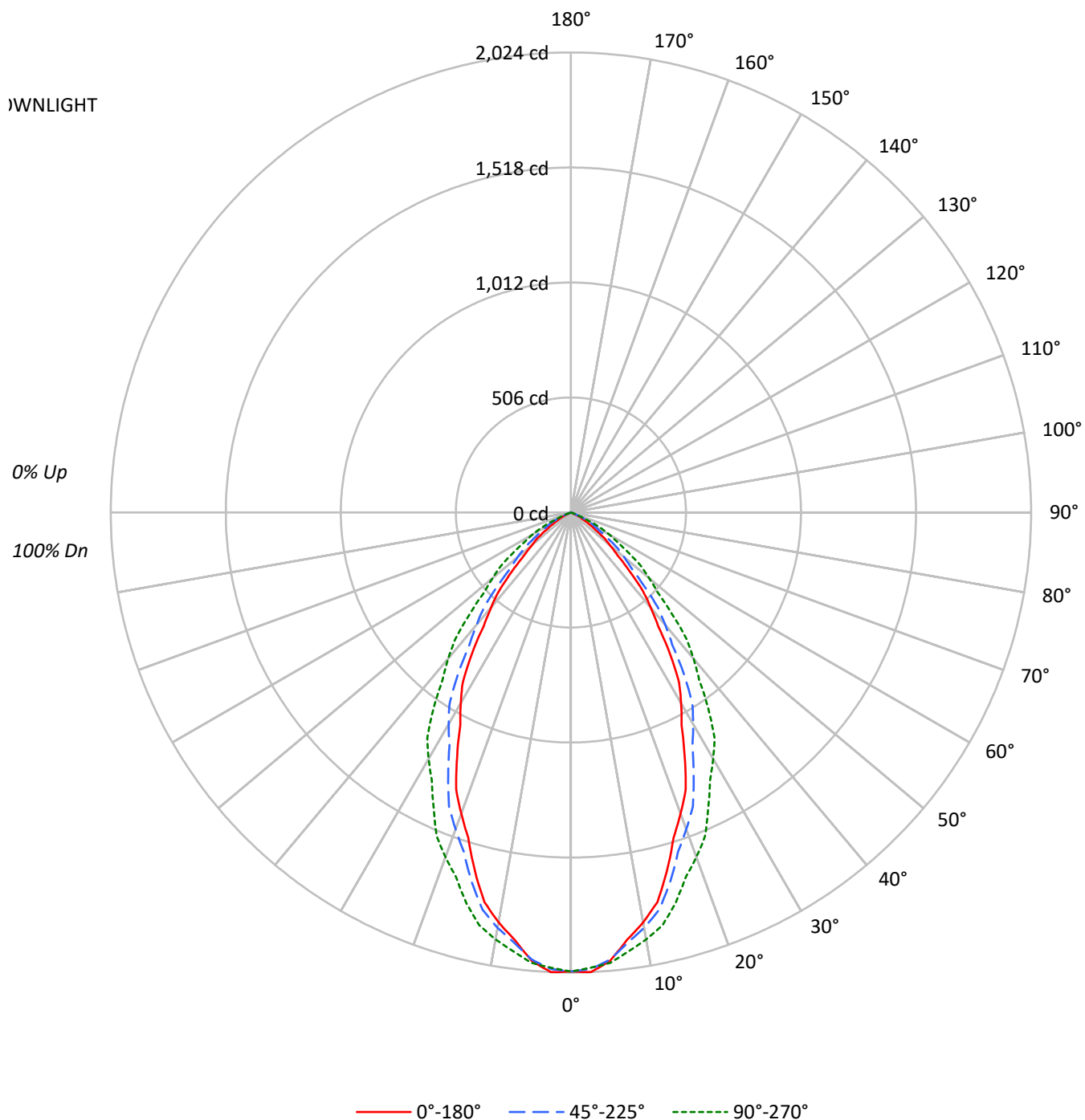
Lumens per Lamp: N/A
Luminaire Lumens: 2409.0 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.9
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	112	109	106	104	110	107	104	102	103	101	99		99	98	96		96
2	106	100	95	91	103	98	94	90	95	91	88		92	89	86		89
3	99	91	85	81	97	90	84	80	87	82	79		85	81	77		82
4	93	84	77	72	91	83	76	72	80	75	71		78	74	70		76
5	87	77	70	65	85	76	70	65	74	68	64		72	67	64		71
6	82	71	64	59	80	70	64	59	69	63	58		67	62	58		66
7	77	66	59	54	75	65	59	54	64	58	53		62	57	53		61
8	72	61	54	50	71	61	54	49	59	53	49		58	53	49		57
9	68	57	50	46	67	57	50	46	56	50	46		55	49	45		54
10	65	54	47	42	63	53	47	42	52	46	42		51	46	42		51

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18632	18632	18632
5°	18332	18288	18423
10°	17152	17381	17867
15°	15594	16089	16985
20°	13843	14562	15836
25°	12053	13008	14550
30°	10326	11459	13333
35°	8560	9728	11861
40°	6577	7779	10107
45°	4756	5890	8133
50°	3238	4388	6452
55°	2106	3174	5014
60°	1209	2236	3624
65°	319	1367	1836
70°	162	424	526
75°	71	32	0
80°	48	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8133 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.3	7.7
10°-20°	471.3	19.6
20°-30°	590.0	24.5
30°-40°	545.0	22.6
40°-50°	366.2	15.2
50°-60°	189.1	7.9
60°-70°	59.3	2.5
70°-80°	3.7	0.2
80°-90°	0.1	0.0
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°	1245.6	51.7
0°-40°	1790.6	74.3
0°-60°	2345.9	97.4
0°-90°	2409.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2409.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2020	2020	2020	2020	2020	
5°	1979	1959	1975	1981	1989	184
15°	1633	1627	1684	1741	1778	455
25°	1184	1194	1278	1365	1429	543
35°	760	779	864	965	1053	471
45°	364	386	451	539	623	286
55°	131	153	197	254	312	122
65°	15	28	63	75	84	25
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2019.5	2019.5	2019.5	2019.5	2019.5
2.5°	2024.1	2005.1	2010.0	2010.0	2004.6
5°	1979.4	1959.3	1974.6	1981.4	1989.2
7.5°	1895.8	1880.1	1909.3	1931.0	1946.9
10°	1830.8	1817.5	1855.3	1885.0	1907.1
12.5°	1755.8	1745.4	1791.2	1832.1	1860.2
15°	1632.6	1626.9	1684.4	1740.8	1778.2
17.5°	1500.6	1500.3	1565.8	1636.1	1681.0
20°	1409.9	1412.7	1483.1	1560.5	1612.9
22.5°	1319.2	1325.8	1401.0	1481.8	1541.9
25°	1184.0	1193.5	1277.8	1365.4	1429.3
27.5°	1054.4	1068.4	1157.0	1247.7	1325.8
30°	969.3	985.4	1075.6	1171.2	1251.5
32.5°	885.4	904.9	992.7	1094.0	1175.6
35°	760.0	779.3	863.7	965.3	1053.1
37.5°	630.6	649.2	731.7	831.9	926.8
40°	546.1	567.1	645.9	742.8	839.2
42.5°	469.6	490.6	564.5	659.8	750.9
45°	364.5	386.4	451.4	539.3	623.3
47.5°	277.4	301.0	358.1	437.7	514.3
50°	225.6	249.5	305.7	375.8	449.5
52.5°	184.3	207.5	258.1	324.0	391.5
55°	130.9	152.8	197.3	253.5	311.7
57.5°	90.5	109.5	149.3	196.0	241.8
60°	65.5	83.6	121.2	159.0	196.4
62.5°	43.6	60.2	96.9	126.1	151.1
65°	14.6	28.1	62.6	75.4	84.1
67.5°	7.5	8.8	32.7	34.7	37.6
70°	6.0	6.0	15.7	16.6	19.5
72.5°	4.2	4.2	6.2	8.0	8.6
75°	2.0	2.0	0.9	0.0	0.0
77.5°	0.9	0.9	0.9	0.0	0.0
80°	0.9	0.9	0.0	0.0	0.0
82.5°	0.2	0.2	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	10.09	11.32	10.46	11.64	11.95	14.68	15.91	15.04	16.22	16.54
	3H	9.97	11.05	10.35	11.38	11.75	14.65	15.73	15.03	16.06	16.43
	4H	9.89	10.90	10.30	11.25	11.63	14.57	15.57	14.98	15.92	16.31
	6H	9.81	10.72	10.22	11.10	11.49	14.48	15.40	14.90	15.77	16.17
	8H	9.76	10.62	10.19	11.02	11.42	14.44	15.30	14.87	15.69	16.10
	12H	9.71	10.54	10.14	10.92	11.35	14.39	15.21	14.82	15.60	16.03
4H	2H	10.46	11.46	10.86	11.81	12.20	14.61	15.61	15.02	15.97	16.35
	3H	10.34	11.15	10.76	11.56	11.96	14.59	15.40	15.00	15.81	16.21
	4H	10.25	10.97	10.69	11.39	11.84	14.49	15.21	14.93	15.63	16.08
	6H	10.16	10.78	10.63	11.23	11.70	14.40	15.02	14.87	15.47	15.94
	8H	10.10	10.67	10.57	11.12	11.60	14.34	14.91	14.81	15.36	15.84
	12H	10.05	10.55	10.54	11.04	11.51	14.29	14.79	14.78	15.28	15.75
8H	4H	10.11	10.68	10.58	11.13	11.60	14.34	14.92	14.81	15.36	15.84
	6H	10.00	10.46	10.50	10.96	11.45	14.23	14.70	14.74	15.19	15.68
	8H	9.93	10.35	10.46	10.87	11.36	14.16	14.58	14.69	15.10	15.59
	12H	9.88	10.25	10.40	10.75	11.32	14.11	14.48	14.63	14.98	15.55
12H	4H	10.06	10.56	10.54	11.04	11.52	14.29	14.79	14.78	15.28	15.75
	6H	9.93	10.35	10.46	10.87	11.36	14.16	14.58	14.69	15.10	15.59
	8H	9.88	10.25	10.40	10.75	11.32	14.11	14.48	14.63	14.98	15.55

END OF REPORT