

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: P1036216

Luminaire Tested: SQ4R-F-100D-B2750-1D-UNV-W2A_5000K

Issue Date: 8/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P1036216
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P520092)
Test Lab: INNOVATION CENTER
Issue Date: 8/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-F-100D-B2750-1D-UNV-W2A_5000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 1000 LUMENS PER FOOT DC

Light Source: -
Ballast/Driver: -

Summary

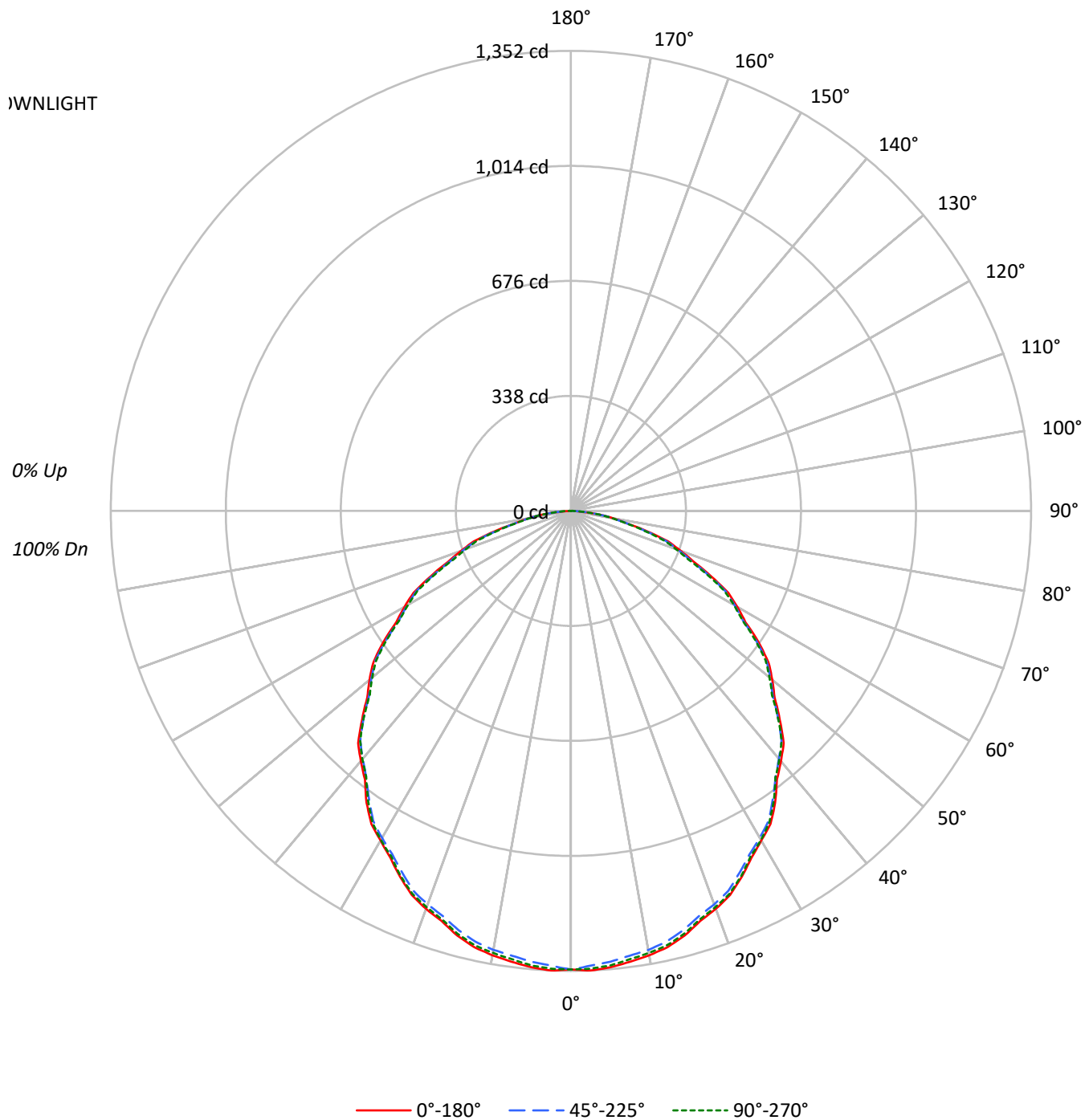
Lumens per Lamp: N/A
Luminaire Lumens: 3678.6 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1036216

CATALOG NUMBER: SQ4R-F-100D-B2750-1D-UNV-W2A_5000K

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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	86	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	61	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12435	12435	12435
5°	12467	12317	12416
10°	12424	12272	12356
15°	12339	12183	12288
20°	12222	12081	12170
25°	12085	11939	12050
30°	11917	11821	11898
35°	11789	11646	11705
40°	11563	11451	11474
45°	11324	11230	11230
50°	11085	10980	10930
55°	10827	10681	10623
60°	10422	10256	10189
65°	9927	9728	9608
70°	9247	9050	8859
75°	8295	8038	7846
80°	6711	6626	6424
85°	3991	4594	4764

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 11349 cd/sqm

TEST NUMBER: P1036216

CATALOG NUMBER: SQ4R-F-100D-B2750-1D-UNV-W2A_5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.2	3.5
10°-20°	362.1	9.8
20°-30°	543.9	14.8
30°-40°	649.3	17.7
40°-50°	665.4	18.1
50°-60°	593.4	16.1
60°-70°	441.9	12.0
70°-80°	239.9	6.5
80°-90°	55.5	1.5
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°	1033.2	28.1
0°-40°	1682.5	45.7
0°-60°	2941.3	80.0
0°-90°	3678.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3678.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1348	1348	1348	1348	1348	
5°	1346	1344	1330	1342	1341	128
15°	1292	1288	1276	1286	1286	364
25°	1187	1184	1173	1180	1184	547
35°	1047	1043	1034	1034	1039	653
45°	868	870	861	859	861	670
55°	673	673	664	659	660	600
65°	455	453	446	440	440	450
75°	233	231	226	222	220	246
85°	38	41	43	45	45	54
90°	0	0	0	0	0	

TEST NUMBER: P1036216

CATALOG NUMBER: SQ4R-F-100D-B2750-1D-UNV-W2A_5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1347.8	1347.8	1347.8	1347.8	1347.8
2.5°	1352.0	1349.3	1337.7	1347.8	1346.5
5°	1346.1	1344.3	1329.9	1342.4	1340.6
7.5°	1336.2	1332.8	1318.6	1330.9	1329.0
10°	1326.1	1322.6	1309.9	1320.6	1318.9
12.5°	1313.2	1311.1	1297.0	1307.8	1307.3
15°	1291.8	1288.2	1275.5	1286.5	1286.5
17.5°	1263.8	1261.6	1249.2	1259.5	1258.5
20°	1244.8	1241.4	1230.5	1239.5	1239.5
22.5°	1221.8	1219.7	1209.0	1216.4	1217.8
25°	1187.1	1183.7	1172.8	1180.1	1183.7
27.5°	1149.0	1146.2	1137.2	1141.9	1144.3
30°	1118.6	1118.6	1109.6	1111.5	1116.8
32.5°	1091.3	1091.3	1080.7	1082.6	1085.2
35°	1046.7	1043.0	1034.0	1034.0	1039.2
37.5°	994.4	992.8	987.1	986.0	987.4
40°	960.1	958.2	950.8	952.7	952.7
42.5°	925.4	923.5	916.0	913.8	916.5
45°	867.9	869.8	860.7	858.8	860.7
47.5°	811.4	811.4	804.1	799.0	801.7
50°	772.3	772.3	765.0	761.5	761.5
52.5°	731.8	733.2	724.4	719.6	721.1
55°	673.1	673.1	664.0	658.7	660.4
57.5°	608.0	608.0	599.1	593.7	596.8
60°	564.8	564.8	555.8	550.3	552.2
62.5°	521.4	521.4	512.6	507.1	507.3
65°	454.7	453.0	445.6	440.1	440.1
67.5°	390.4	385.8	380.3	373.2	373.2
70°	342.8	340.9	335.5	328.4	328.4
72.5°	299.5	296.3	290.8	285.1	285.1
75°	232.7	230.8	225.5	222.0	220.1
77.5°	166.8	165.3	164.9	159.8	161.3
80°	126.3	126.3	124.7	120.9	120.9
82.5°	90.2	91.6	88.4	87.6	86.2
85°	37.7	41.3	43.4	45.0	45.0
87.5°	7.3	11.3	10.1	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1036216

CATALOG NUMBER: SQ4R-F-100D-B2750-1D-UNV-W2A_5000K

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	20.34	21.97	20.71	22.28	22.60	20.18	21.81	20.55	22.12	22.44
	3H	22.08	23.55	22.46	23.88	24.24	21.88	23.35	22.25	23.67	24.03
	4H	22.74	24.12	23.14	24.47	24.85	22.51	23.89	22.91	24.24	24.62
	6H	23.11	24.39	23.52	24.76	25.15	22.88	24.16	23.29	24.52	24.91
	8H	23.23	24.46	23.66	24.85	25.25	23.00	24.22	23.42	24.61	25.01
	12H	23.29	24.46	23.72	24.84	25.27	23.06	24.24	23.49	24.62	25.05
4H	2H	20.96	22.35	21.36	22.69	23.07	20.84	22.22	21.23	22.57	22.94
	3H	22.94	24.09	23.34	24.49	24.89	22.76	23.92	23.17	24.31	24.71
	4H	23.70	24.74	24.13	25.16	25.59	23.49	24.54	23.92	24.95	25.39
	6H	24.17	25.09	24.63	25.53	25.98	23.96	24.87	24.41	25.31	25.77
	8H	24.34	25.19	24.80	25.64	26.10	24.12	24.98	24.58	25.42	25.88
	12H	24.42	25.19	24.90	25.66	26.13	24.22	24.99	24.70	25.46	25.93
8H	4H	23.96	24.81	24.42	25.25	25.72	23.77	24.63	24.23	25.07	25.54
	6H	24.54	25.24	25.03	25.73	26.21	24.34	25.05	24.84	25.54	26.02
	8H	24.77	25.40	25.28	25.91	26.40	24.57	25.20	25.08	25.71	26.20
	12H	24.90	25.46	25.41	25.95	26.51	24.72	25.28	25.23	25.77	26.33
12H	4H	23.97	24.74	24.45	25.22	25.69	23.80	24.56	24.28	25.04	25.51
	6H	24.57	25.21	25.08	25.71	26.20	24.39	25.02	24.90	25.53	26.01
	8H	24.85	25.42	25.36	25.91	26.47	24.66	25.22	25.17	25.71	26.28