

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: P845496

Luminaire Tested: SQ2R-FA-050D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845496
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-FA-050D-930-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

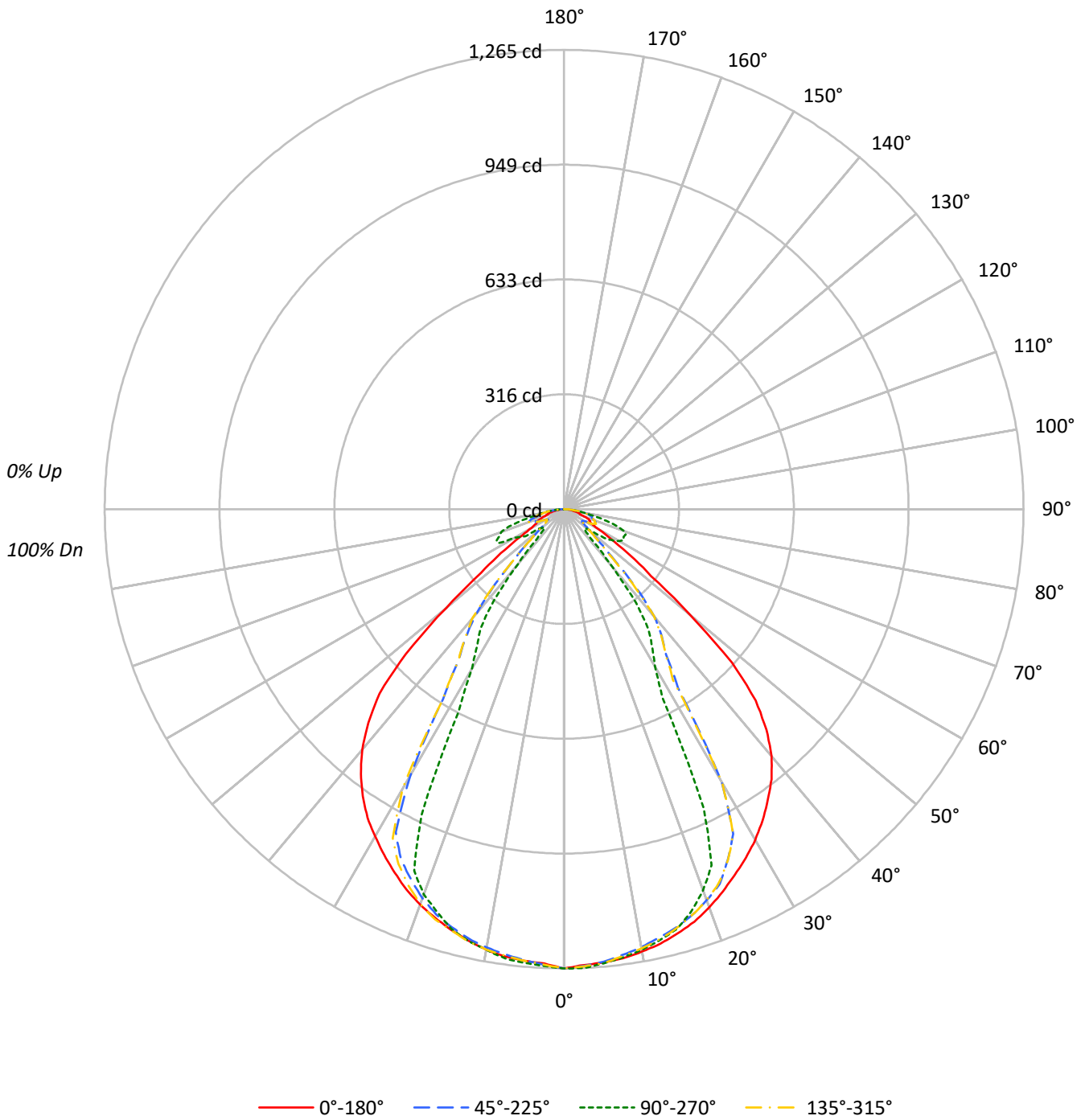
Lumens per Lamp: N/A
Luminaire Lumens: 1846.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 0.95 / 0.93
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9973
Total Harmonic Distortion (THDi): 0.0531
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
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				
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	55	49	46	44				
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				
10	63	51	44	40	61	51	44	40	50	44	40	49	43	39	48	43	39	38				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	20429	20429	20429	20429
5°	20321	20352	20245	20337
10°	20290	20212	20212	20212
15°	20224	20017	20065	20017
20°	20067	19215	19921	19395
25°	19803	16217	19668	16557
30°	19622	9303	19408	9428
35°	19279	7993	19034	7880
40°	18744	4203	18221	4163
45°	17038	1808	16429	1808
50°	11241	2180	10665	2037
55°	6286	4028	5962	3654
60°	3391	5670	3329	5083
65°	2988	6888	3137	7840
70°	2795	8242	2658	8696
75°	2620	7087	2676	7324
80°	2222	5058	2222	5328
85°	1945	2834	1760	3353

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17038 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	6.5
10°-20°	338.1	18.3
20°-30°	462.5	25.1
30°-40°	387.4	21.0
40°-50°	217.1	11.8
50°-60°	115.1	6.2
60°-70°	107.4	5.8
70°-80°	79.0	4.3
80°-90°	20.2	1.1
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°	919.8	49.8
0°-40°	1307.2	70.8
0°-60°	1639.4	88.8
0°-90°	1846.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1846.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1265	1265	1265	1265	1265	
5°	1254	1256	1249	1255	1254	119
15°	1210	1198	1200	1198	1210	341
25°	1112	910	1104	929	1112	513
35°	978	406	966	400	978	611
45°	746	79	720	79	746	550
55°	223	143	212	130	223	211
65°	78	180	82	205	78	78
75°	42	114	43	117	42	43
85°	10	15	10	18	10	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3
2.5°	1256.7	1280.5	1259.6	1256.7	1265.3	1263.4	1260.5	1272.0	1252.9	1272.0	1256.7
5°	1253.8	1275.8	1251.0	1244.3	1255.7	1248.1	1254.8	1268.1	1249.1	1266.2	1247.1
7.5°	1248.1	1268.1	1238.6	1233.8	1245.2	1238.6	1241.4	1259.6	1243.3	1254.8	1237.6
10°	1237.6	1254.8	1225.2	1222.3	1232.8	1226.2	1229.0	1248.1	1232.8	1243.3	1226.2
12.5°	1226.2	1238.6	1209.0	1208.0	1216.6	1212.8	1213.7	1229.0	1217.6	1228.1	1211.8
15°	1209.9	1222.3	1192.8	1188.0	1197.5	1193.7	1195.6	1209.9	1200.4	1207.1	1192.8
17.5°	1191.8	1201.3	1172.7	1162.2	1163.2	1167.9	1172.7	1189.9	1180.4	1188.9	1170.8
20°	1167.9	1179.4	1147.0	1120.2	1118.3	1123.1	1147.0	1164.1	1159.4	1168.9	1140.3
22.5°	1140.3	1147.0	1118.3	1068.7	1061.1	1065.8	1114.5	1135.5	1134.6	1140.3	1103.1
25°	1111.6	1119.3	1065.8	1002.9	910.3	997.1	1067.8	1104.0	1104.0	1109.7	1063.0
27.5°	1083.0	1084.9	1008.6	675.6	584.0	647.9	1006.7	1065.8	1073.5	1072.5	1003.8
30°	1052.5	1045.8	869.3	520.0	499.0	512.4	870.2	1025.8	1041.0	1030.5	847.3
32.5°	1017.2	995.2	584.9	467.6	451.3	462.8	558.2	978.1	1007.6	981.9	621.2
35°	978.1	928.4	489.5	422.7	405.5	420.8	485.7	912.2	965.7	904.6	505.7
37.5°	938.0	774.8	441.8	359.7	325.4	354.0	439.9	772.0	918.9	739.5	443.7
40°	889.3	573.5	387.4	247.1	199.4	232.8	384.5	546.8	864.5	589.7	377.9
42.5°	824.4	484.7	292.0	134.5	103.1	121.2	276.7	477.1	797.7	489.5	281.5
45°	746.2	431.3	184.2	85.9	79.2	83.0	169.8	423.7	719.5	414.1	188.0
47.5°	626.9	346.4	125.0	72.5	78.2	72.5	121.2	335.9	591.6	329.2	125.0
50°	447.5	256.7	91.6	73.5	86.8	73.5	88.7	248.1	424.6	271.9	90.6
52.5°	302.5	205.2	70.6	82.1	108.8	84.0	68.7	200.4	287.2	207.1	65.8
55°	223.3	169.8	60.1	105.9	143.1	108.8	60.1	165.1	211.8	163.2	58.2
57.5°	150.8	133.6	59.2	134.5	160.3	137.4	60.1	128.8	144.1	129.8	52.5
60°	105.0	100.2	67.7	145.0	175.6	146.9	68.7	96.4	103.1	95.4	57.3
62.5°	82.1	73.5	84.9	160.3	184.2	154.6	86.8	69.7	86.8	65.8	64.9
65°	78.2	50.6	96.4	159.4	180.3	159.4	97.3	47.7	82.1	51.5	85.9
67.5°	73.5	38.2	94.5	157.4	183.2	159.4	91.6	36.3	70.6	35.3	84.0
70°	59.2	33.4	87.8	161.3	174.6	155.5	87.8	32.4	56.3	31.5	103.1
72.5°	46.8	31.5	80.2	146.0	149.8	140.3	81.1	31.5	47.7	27.7	95.4
75°	42.0	31.5	78.2	119.3	113.6	113.6	76.3	30.5	42.9	28.6	75.4
77.5°	33.4	28.6	67.7	83.0	78.2	78.2	66.8	27.7	31.5	25.8	63.9
80°	23.9	25.8	53.4	57.3	54.4	54.4	51.5	24.8	23.9	23.9	50.6
82.5°	17.2	21.0	38.2	38.2	36.3	35.3	37.2	21.0	17.2	19.1	36.3
85°	10.5	15.3	21.9	18.1	15.3	14.3	21.0	14.3	9.5	14.3	21.0
87.5°	4.8	8.6	3.8	3.8	3.8	3.8	3.8	8.6	4.8	7.6	4.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3
2.5°	1252.9	1259.6	1259.6	1255.7	1274.8	1256.7
5°	1242.4	1254.8	1249.1	1249.1	1268.1	1253.8
7.5°	1235.7	1248.1	1242.4	1240.5	1259.6	1248.1
10°	1224.2	1232.8	1229.0	1231.9	1249.1	1237.6
12.5°	1208.0	1218.5	1214.7	1219.5	1234.7	1226.2
15°	1188.9	1197.5	1199.4	1201.3	1219.5	1209.9
17.5°	1159.4	1163.2	1173.7	1184.2	1202.3	1191.8
20°	1123.1	1128.8	1134.6	1157.5	1179.4	1167.9
22.5°	1082.1	1078.3	1093.5	1121.2	1149.8	1140.3
25°	1002.9	929.4	1010.5	1078.3	1114.5	1111.6
27.5°	736.6	629.8	723.3	1022.0	1079.2	1083.0
30°	549.6	505.7	548.7	888.4	1039.1	1052.5
32.5°	472.3	445.6	467.6	623.1	988.6	1017.2
35°	420.8	399.8	420.8	505.7	918.9	978.1
37.5°	358.8	318.7	359.7	448.5	777.7	938.0
40°	251.9	197.5	244.3	391.2	587.8	889.3
42.5°	146.9	109.7	137.4	287.2	486.6	824.4
45°	90.6	79.2	86.8	186.1	412.2	746.2
47.5°	71.6	73.5	71.6	124.0	328.2	626.9
50°	67.7	81.1	67.7	90.6	261.5	447.5
52.5°	75.4	89.7	74.4	66.8	202.3	302.5
55°	83.0	129.8	84.0	58.2	157.4	223.3
57.5°	118.3	143.1	120.2	54.4	128.8	150.8
60°	122.1	157.4	121.2	58.2	94.5	105.0
62.5°	149.8	204.2	149.8	68.7	63.9	82.1
65°	186.1	205.2	188.0	84.9	49.6	78.2
67.5°	177.5	191.8	175.6	87.8	34.4	73.5
70°	173.7	184.2	171.8	104.0	31.5	59.2
72.5°	159.4	158.4	155.5	94.5	27.7	46.8
75°	126.0	117.4	121.2	83.0	28.6	42.0
77.5°	83.0	79.2	80.2	65.8	25.8	33.4
80°	59.2	57.3	56.3	53.4	23.9	23.9
82.5°	40.1	38.2	37.2	38.2	19.1	17.2
85°	20.0	18.1	17.2	23.9	14.3	10.5
87.5°	4.8	4.8	3.8	4.8	6.7	4.8
90°	0.0	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	14.47	15.77	14.83	16.09	16.40	13.31	14.62	13.67	14.93	15.24
	3H	15.19	16.36	15.56	16.69	17.05	19.51	20.68	19.89	21.01	21.38
	4H	15.61	16.71	16.02	17.06	17.44	20.81	21.90	21.21	22.25	22.64
	6H	15.99	17.00	16.40	17.37	17.76	21.43	22.44	21.85	22.81	23.21
	8H	16.12	17.08	16.55	17.47	17.87	21.57	22.53	22.00	22.92	23.32
	12H	16.20	17.12	16.64	17.50	17.93	21.62	22.54	22.06	22.92	23.35
4H	2H	14.90	16.00	15.31	16.35	16.73	13.89	14.98	14.29	15.34	15.72
	3H	15.92	16.83	16.34	17.24	17.64	20.26	21.17	20.68	21.58	21.98
	4H	16.50	17.31	16.93	17.73	18.18	21.73	22.55	22.16	22.97	23.41
	6H	16.99	17.71	17.46	18.15	18.62	22.49	23.20	22.95	23.64	24.11
	8H	17.17	17.84	17.64	18.28	18.75	22.66	23.32	23.13	23.77	24.24
	12H	17.31	17.90	17.79	18.38	18.85	22.74	23.33	23.23	23.81	24.28
8H	4H	17.63	18.29	18.09	18.74	19.21	21.88	22.54	22.34	22.99	23.46
	6H	18.25	18.79	18.75	19.29	19.77	22.77	23.31	23.27	23.81	24.29
	8H	18.49	18.97	19.01	19.49	19.98	23.02	23.50	23.54	24.02	24.51
	12H	18.68	19.11	19.20	19.60	20.17	23.16	23.58	23.67	24.08	24.65
12H	4H	17.79	18.38	18.28	18.86	19.34	21.86	22.44	22.34	22.93	23.40
	6H	18.52	19.01	19.04	19.52	20.02	22.78	23.26	23.30	23.78	24.27
	8H	18.85	19.27	19.36	19.77	20.34	23.08	23.50	23.59	24.00	24.57