

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: P845544

Luminaire Tested: SQ2R-PC3-050D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845544
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PC3-050D-930-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

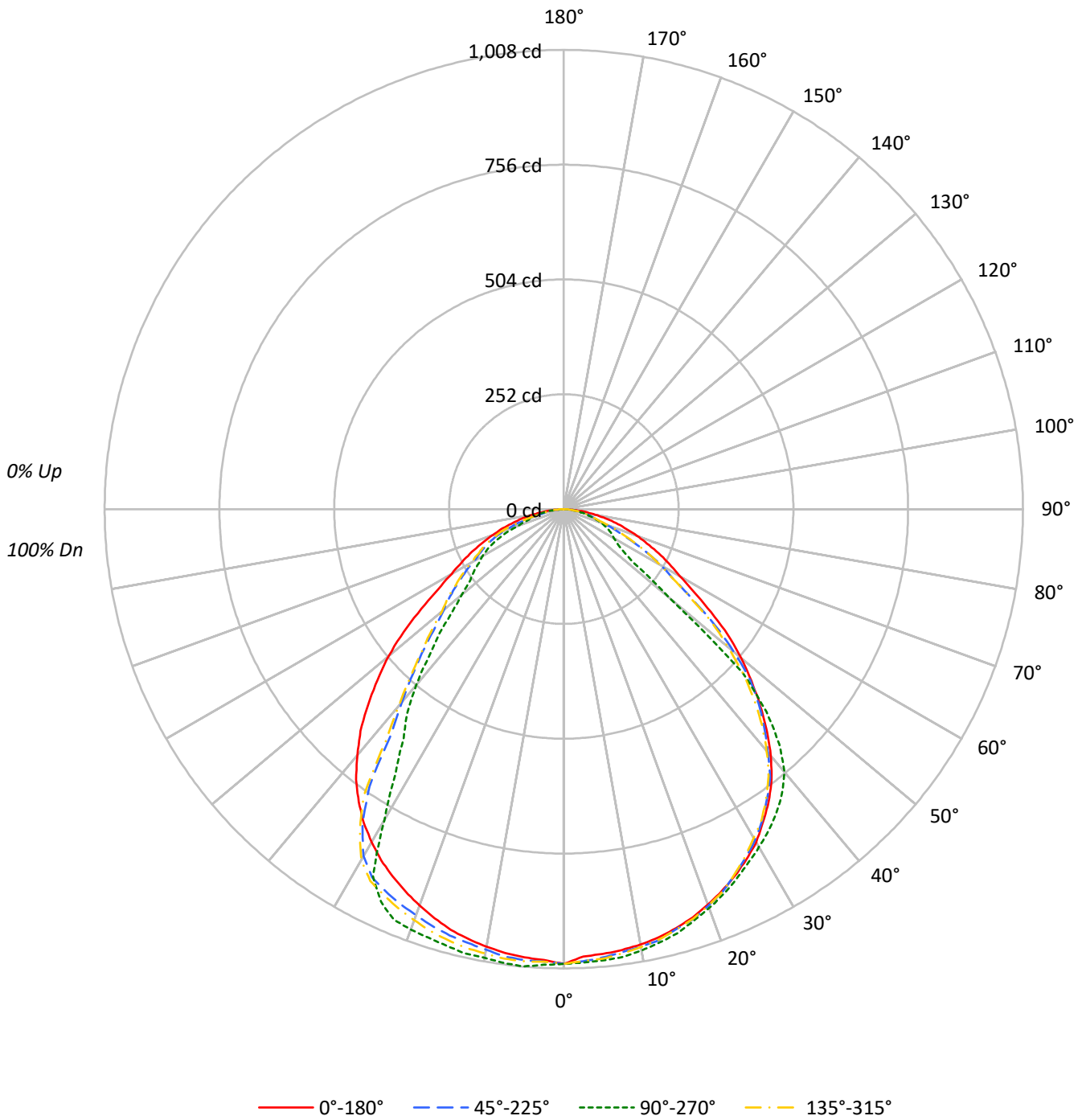
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2237.7 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.21 / 1.25
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16115	16115	16115	16115
5°	15883	16115	16007	16331
10°	15910	16129	15988	16395
15°	15918	16110	15982	16588
20°	15871	16019	15904	16871
25°	15827	15962	15843	16931
30°	15745	15976	15726	14695
35°	15461	16042	15461	12075
40°	14903	15888	14842	10619
45°	13922	14358	13878	8780
50°	12775	7573	12607	7309
55°	11119	4377	10745	6795
60°	9491	4098	9184	6655
65°	8787	4191	8493	6308
70°	8063	4098	7836	4999
75°	7380	3693	7143	4523
80°	6564	3282	6211	4528
85°	4946	1760	4594	2297

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14358 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.6	4.2
10°-20°	273.4	12.2
20°-30°	417.8	18.7
30°-40°	472.2	21.1
40°-50°	412.7	18.4
50°-60°	273.1	12.2
60°-70°	178.4	8.0
70°-80°	93.4	4.2
80°-90°	22.0	1.0
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°	785.9	35.1
0°-40°	1258.0	56.2
0°-60°	1943.8	86.9
0°-90°	2237.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2237.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	998	998	998	998	998	
5°	980	994	988	1008	980	93
15°	952	964	956	992	952	269
25°	888	896	889	950	888	409
35°	784	814	784	613	784	489
45°	610	629	608	384	610	470
55°	395	156	382	241	395	355
65°	230	110	222	165	230	228
75°	118	59	114	72	118	126
85°	27	10	25	12	27	32
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°	998.1	998.1	998.1	998.1	998.1	998.1	998.1	998.1	998.1	998.1	998.1
2.5°	982.8	1007.6	993.3	992.4	996.2	997.1	992.4	1002.9	990.5	1003.8	994.3
5°	980.0	1004.8	987.6	985.7	994.3	991.4	990.5	1000.0	987.6	998.1	993.3
7.5°	976.2	999.1	980.9	980.0	991.4	987.6	983.8	995.2	982.8	994.3	990.5
10°	970.4	990.5	975.2	976.2	983.8	980.0	976.2	985.7	975.2	989.5	981.9
12.5°	962.8	982.8	968.5	965.7	974.2	967.6	967.6	975.2	966.6	981.9	975.2
15°	952.3	972.3	954.2	956.1	963.8	957.1	955.2	964.7	956.1	971.4	968.5
17.5°	939.9	957.1	943.7	944.7	947.5	944.7	942.8	950.4	941.8	958.0	959.9
20°	923.7	943.7	926.5	926.5	932.3	924.6	926.5	933.2	925.6	944.7	948.5
22.5°	907.5	926.5	910.3	910.3	915.1	904.6	909.4	914.1	908.4	929.4	938.0
25°	888.4	903.6	885.5	891.2	896.0	886.5	885.5	893.1	889.3	910.3	925.6
27.5°	867.4	880.7	863.6	871.2	876.0	869.3	860.7	870.2	868.3	892.2	911.3
30°	844.5	856.9	839.7	850.2	856.9	847.3	834.0	842.6	843.5	871.2	878.8
32.5°	813.9	826.3	810.1	827.3	836.8	823.5	808.2	813.0	816.8	844.5	822.5
35°	784.4	790.1	777.7	799.6	813.9	797.7	774.8	780.5	784.4	815.8	744.3
37.5°	749.1	749.1	744.3	768.1	787.2	763.4	738.6	741.4	749.1	775.8	620.2
40°	707.1	701.3	696.6	728.1	753.8	722.3	692.8	693.7	704.2	710.9	552.5
42.5°	660.3	653.6	651.7	685.1	700.4	674.6	644.1	645.0	660.3	621.2	489.5
45°	609.7	606.9	605.0	627.9	628.8	612.6	590.7	595.4	607.8	536.3	433.2
47.5°	558.2	556.3	555.3	537.2	533.4	522.0	533.4	543.9	554.4	447.5	381.7
50°	508.6	495.2	487.6	420.8	301.5	414.1	469.5	487.6	501.9	390.3	343.5
52.5°	454.2	442.8	418.9	321.6	190.8	319.7	411.3	434.2	442.8	355.0	314.9
55°	395.0	395.0	343.5	206.1	155.5	216.6	337.8	388.4	381.7	317.8	282.4
57.5°	338.7	350.2	285.3	138.4	137.4	138.4	283.4	345.4	326.3	288.2	255.7
60°	293.9	311.1	247.1	123.1	126.9	121.2	242.4	307.3	284.4	256.7	226.1
62.5°	260.5	274.8	204.2	112.6	119.3	110.7	205.2	273.9	251.9	233.8	206.1
65°	230.0	244.3	161.3	103.1	109.7	101.1	166.0	242.4	222.3	208.0	188.0
67.5°	197.5	210.9	127.9	93.5	98.3	92.6	133.6	210.9	192.8	183.2	164.1
70°	170.8	186.1	97.3	84.0	86.8	83.0	104.0	182.3	166.0	162.2	140.3
72.5°	144.1	156.5	75.4	74.4	73.5	72.5	76.3	155.5	140.3	133.6	108.8
75°	118.3	126.9	62.0	62.0	59.2	60.1	62.0	126.9	114.5	108.8	77.3
77.5°	93.5	100.2	50.6	48.7	45.8	45.8	49.6	97.3	90.6	84.0	51.5
80°	70.6	72.5	38.2	36.3	35.3	35.3	38.2	70.6	66.8	60.1	40.1
82.5°	47.7	40.1	25.8	26.7	25.8	25.8	24.8	41.0	44.8	30.5	29.6
85°	26.7	18.1	16.2	12.4	9.5	10.5	15.3	17.2	24.8	16.2	19.1
87.5°	9.5	7.6	2.9	3.8	2.9	2.9	2.9	7.6	7.6	5.7	2.9
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°	998.1	998.1	998.1	998.1	998.1	998.1
2.5°	995.2	1001.0	1000.0	994.3	1006.7	982.8
5°	996.2	1007.6	1001.9	996.2	1003.8	980.0
7.5°	991.4	1004.8	998.1	995.2	1002.9	976.2
10°	988.6	1000.0	994.3	990.5	998.1	970.4
12.5°	985.7	999.1	991.4	986.7	991.4	962.8
15°	978.1	992.4	987.6	980.0	980.0	952.3
17.5°	972.3	986.7	981.9	971.4	966.6	939.9
20°	968.5	981.9	975.2	959.9	952.3	923.7
22.5°	959.9	975.2	964.7	948.5	938.0	907.5
25°	944.7	950.4	949.4	935.1	917.9	888.4
27.5°	904.6	907.5	910.3	919.9	900.8	867.4
30°	834.9	788.2	846.4	889.3	879.8	844.5
32.5°	703.3	688.0	722.3	833.0	852.1	813.9
35°	630.7	612.6	641.2	764.3	820.6	784.4
37.5°	564.9	564.9	572.5	642.2	785.3	749.1
40°	518.1	503.8	524.8	563.0	731.9	707.1
42.5°	442.8	438.0	451.3	496.2	650.8	660.3
45°	390.3	384.5	397.0	439.9	563.0	609.7
47.5°	350.2	329.2	356.9	392.2	477.1	558.2
50°	313.0	291.0	317.8	348.3	404.6	508.6
52.5°	280.5	260.5	287.2	320.6	367.4	454.2
55°	247.1	241.4	253.8	289.1	331.1	395.0
57.5°	219.5	221.4	223.3	261.5	297.7	338.7
60°	202.3	206.1	205.2	234.7	270.0	293.9
62.5°	185.1	187.0	187.0	210.9	243.3	260.5
65°	165.1	165.1	167.0	193.7	220.4	230.0
67.5°	143.1	139.3	146.0	170.8	195.6	197.5
70°	112.6	105.9	117.4	147.9	174.6	170.8
72.5°	81.1	84.9	83.0	116.4	149.8	144.1
75°	66.8	72.5	67.7	83.0	122.1	118.3
77.5°	56.3	61.1	56.3	53.4	98.3	93.5
80°	44.8	48.7	44.8	41.0	72.5	70.6
82.5°	32.4	33.4	32.4	30.5	47.7	47.7
85°	15.3	12.4	17.2	20.0	19.1	26.7
87.5°	2.9	2.9	2.9	3.8	10.5	9.5
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	19.88	21.37	20.25	21.68	22.00	17.38	18.87	17.75	19.18	19.50
	3H	21.52	22.85	21.90	23.18	23.54	18.87	20.20	19.25	20.53	20.89
	4H	22.12	23.37	22.52	23.72	24.10	19.32	20.56	19.72	20.91	21.29
	6H	22.55	23.70	22.96	24.07	24.46	19.71	20.86	20.12	21.22	21.62
	8H	22.68	23.77	23.10	24.16	24.56	19.83	20.92	20.25	21.31	21.71
	12H	22.74	23.79	23.17	24.17	24.60	19.86	20.91	20.30	21.29	21.72
4H	2H	20.15	21.40	20.55	21.75	22.13	18.19	19.44	18.60	19.79	20.17
	3H	22.05	23.08	22.46	23.48	23.88	19.84	20.87	20.25	21.27	21.67
	4H	22.79	23.72	23.23	24.14	24.58	20.35	21.27	20.78	21.69	22.13
	6H	23.38	24.18	23.84	24.63	25.09	20.82	21.63	21.28	22.07	22.53
	8H	23.55	24.31	24.02	24.75	25.22	20.97	21.72	21.43	22.17	22.63
	12H	23.65	24.32	24.13	24.80	25.27	21.03	21.70	21.51	22.18	22.65
8H	4H	22.86	23.61	23.33	24.06	24.53	20.66	21.41	21.12	21.85	22.32
	6H	23.55	24.17	24.05	24.66	25.14	21.21	21.83	21.70	22.32	22.80
	8H	23.79	24.34	24.30	24.85	25.34	21.41	21.97	21.92	22.48	22.97
	12H	23.93	24.43	24.45	24.92	25.49	21.52	22.01	22.03	22.51	23.07
12H	4H	22.85	23.52	23.33	24.00	24.47	20.69	21.36	21.18	21.84	22.32
	6H	23.53	24.09	24.05	24.60	25.09	21.25	21.81	21.77	22.32	22.81
	8H	23.81	24.30	24.32	24.80	25.36	21.50	21.99	22.01	22.49	23.05