

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: P845591

Luminaire Tested: SQ2R-PP3-050D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845591
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PP3-050D-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

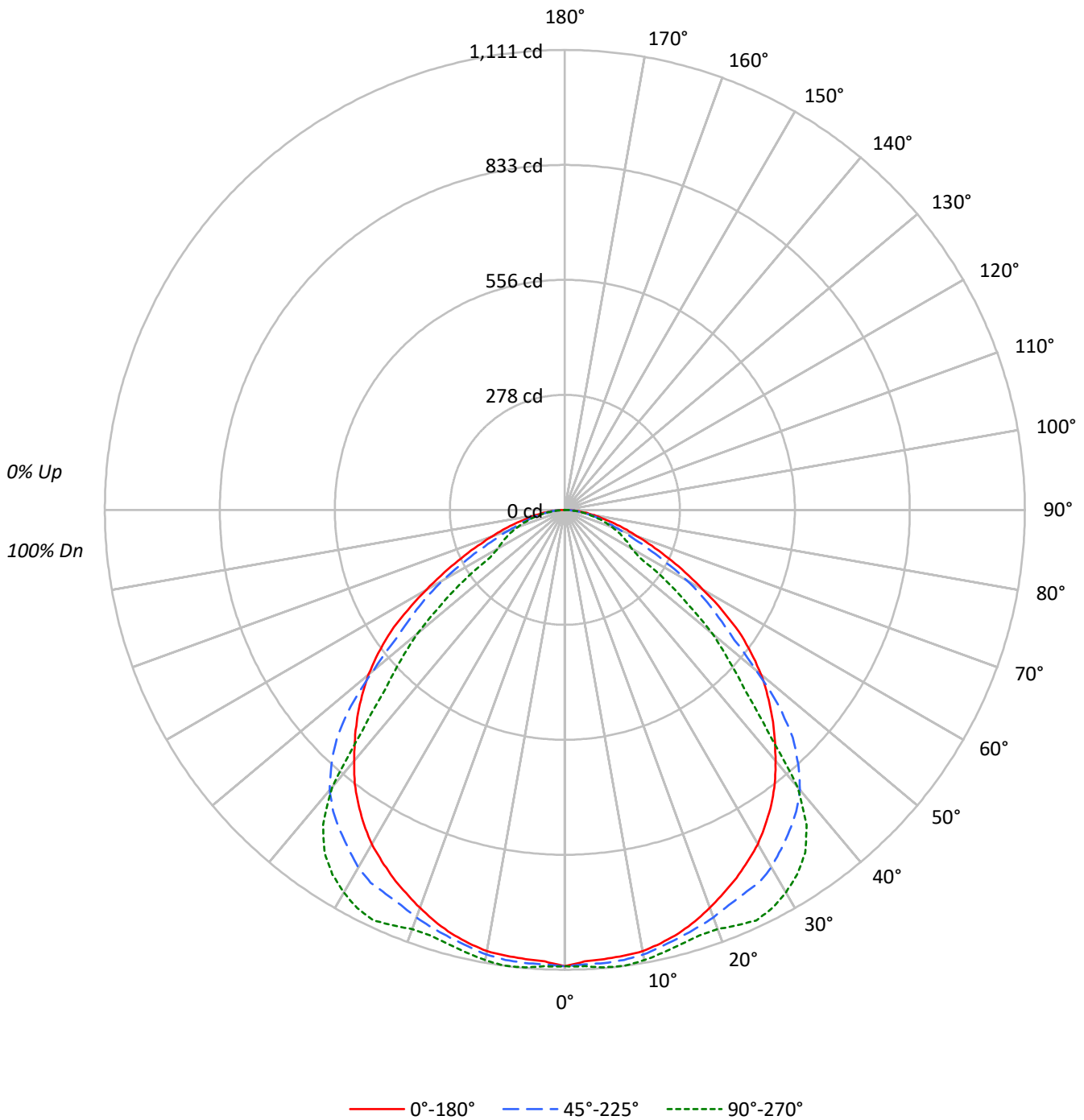
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2777.0 lumens
Efficiency: N/A
Efficacy: 156.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.41 / 1.4
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				100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	89	87				87
2	101	94	88	82	99	92	86	82	88	84	80	85	81	78	82	79	76	74				74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64				64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	61	57	55				55
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49				49
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43				43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38				38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34				34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31				31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17801	17801	17801
5°	17660	17812	17982
10°	17751	17884	18113
15°	17707	17882	18156
20°	17581	18002	18522
25°	17482	18228	19495
30°	17381	18599	19902
35°	17136	18652	19939
40°	16678	18619	18421
45°	16180	17776	14024
50°	15543	15164	11680
55°	14466	12760	8397
60°	12455	10950	6022
65°	10506	8458	5922
70°	8748	6656	5665
75°	7417	5745	5309
80°	6285	4984	4770
85°	4965	4094	2594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17776 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	3.8
10°-20°	303.9	10.9
20°-30°	476.3	17.2
30°-40°	588.1	21.2
40°-50°	553.6	19.9
50°-60°	391.4	14.1
60°-70°	222.3	8.0
70°-80°	110.1	4.0
80°-90°	26.3	0.9
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°	885.2	31.9
0°-40°	1473.3	53.1
0°-60°	2418.3	87.1
0°-90°	2777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2777.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1090	1110	1099	1101	1110	104
15°	1059	1074	1070	1080	1086	299
25°	981	1007	1023	1064	1094	452
35°	869	894	946	1000	1012	543
45°	709	763	778	661	614	546
55°	514	545	453	343	298	454
65°	275	290	221	156	155	275
75°	119	132	92	86	85	128
85°	27	24	22	18	14	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1092.0	1111.8	1099.0	1101.3	1103.6
5°	1089.6	1109.5	1099.0	1101.3	1109.5
7.5°	1086.2	1107.1	1096.6	1100.1	1110.6
10°	1082.7	1100.1	1090.8	1096.6	1104.8
12.5°	1072.2	1088.5	1080.3	1088.5	1095.5
15°	1059.3	1074.5	1069.8	1080.3	1086.2
17.5°	1043.0	1060.5	1059.3	1073.3	1078.0
20°	1023.2	1045.4	1047.7	1066.3	1078.0
22.5°	1002.2	1029.0	1033.7	1064.0	1086.2
25°	981.3	1006.9	1023.2	1064.0	1094.3
27.5°	956.8	982.4	1015.1	1060.5	1085.0
30°	932.3	956.8	997.6	1045.4	1067.5
32.5°	902.0	927.7	971.9	1024.4	1044.2
35°	869.4	893.9	946.3	999.9	1011.6
37.5°	833.3	858.9	918.3	954.5	959.1
40°	791.3	827.4	883.4	889.2	874.0
42.5°	750.5	799.5	834.4	804.1	723.7
45°	708.6	763.3	778.5	660.8	614.2
47.5°	664.3	719.1	701.6	568.7	536.1
50°	618.8	670.1	603.7	495.3	465.0
52.5°	567.5	611.8	516.3	425.4	375.3
55°	513.9	545.4	453.3	342.6	298.3
57.5°	449.8	473.2	399.7	269.2	213.3
60°	385.7	403.2	339.1	210.9	186.5
62.5°	327.5	342.6	276.2	176.0	171.3
65°	275.0	290.2	221.4	156.2	155.0
67.5°	227.3	243.6	177.1	139.8	138.7
70°	185.3	202.8	141.0	122.4	120.0
72.5°	150.3	166.7	114.2	103.7	102.6
75°	118.9	131.7	92.1	86.2	85.1
77.5°	90.9	100.2	72.3	68.8	67.6
80°	67.6	71.1	53.6	52.4	51.3
82.5°	46.6	44.3	37.3	36.1	33.8
85°	26.8	24.5	22.1	17.5	14.0
87.5°	10.5	10.5	4.7	3.5	3.5
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	21.45	22.97	21.81	23.29	23.60	17.85	19.38	18.22	19.69	20.00
	3H	22.60	23.96	22.97	24.28	24.65	19.00	20.37	19.38	20.69	21.06
	4H	22.97	24.24	23.37	24.59	24.97	19.50	20.77	19.90	21.12	21.50
	6H	23.21	24.39	23.63	24.76	25.15	19.87	21.05	20.29	21.42	21.81
	8H	23.28	24.40	23.71	24.79	25.19	19.98	21.10	20.40	21.49	21.89
	12H	23.32	24.39	23.75	24.77	25.20	20.01	21.08	20.44	21.46	21.89
4H	2H	21.64	22.91	22.04	23.26	23.64	18.64	19.92	19.04	20.27	20.65
	3H	23.01	24.06	23.42	24.46	24.86	19.95	21.00	20.36	21.40	21.81
	4H	23.51	24.45	23.94	24.87	25.31	20.53	21.48	20.96	21.89	22.33
	6H	23.88	24.70	24.34	25.14	25.60	21.00	21.83	21.46	22.27	22.73
	8H	23.98	24.75	24.45	25.20	25.66	21.14	21.90	21.60	22.35	22.82
	12H	24.05	24.73	24.53	25.21	25.68	21.19	21.88	21.68	22.36	22.83
8H	4H	23.57	24.34	24.03	24.78	25.25	20.85	21.62	21.31	22.06	22.53
	6H	24.02	24.66	24.52	25.15	25.63	21.42	22.05	21.91	22.54	23.02
	8H	24.18	24.75	24.69	25.26	25.75	21.60	22.17	22.12	22.68	23.17
	12H	24.29	24.80	24.80	25.29	25.86	21.70	22.21	22.21	22.70	23.27
12H	4H	23.56	24.24	24.04	24.72	25.19	20.89	21.57	21.37	22.05	22.52
	6H	24.01	24.58	24.53	25.09	25.58	21.47	22.04	21.98	22.55	23.04
	8H	24.21	24.72	24.72	25.21	25.77	21.70	22.21	22.21	22.70	23.27