

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: P845568

Luminaire Tested: SQ2R-PH1-050D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845568
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PH1-050D-930-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

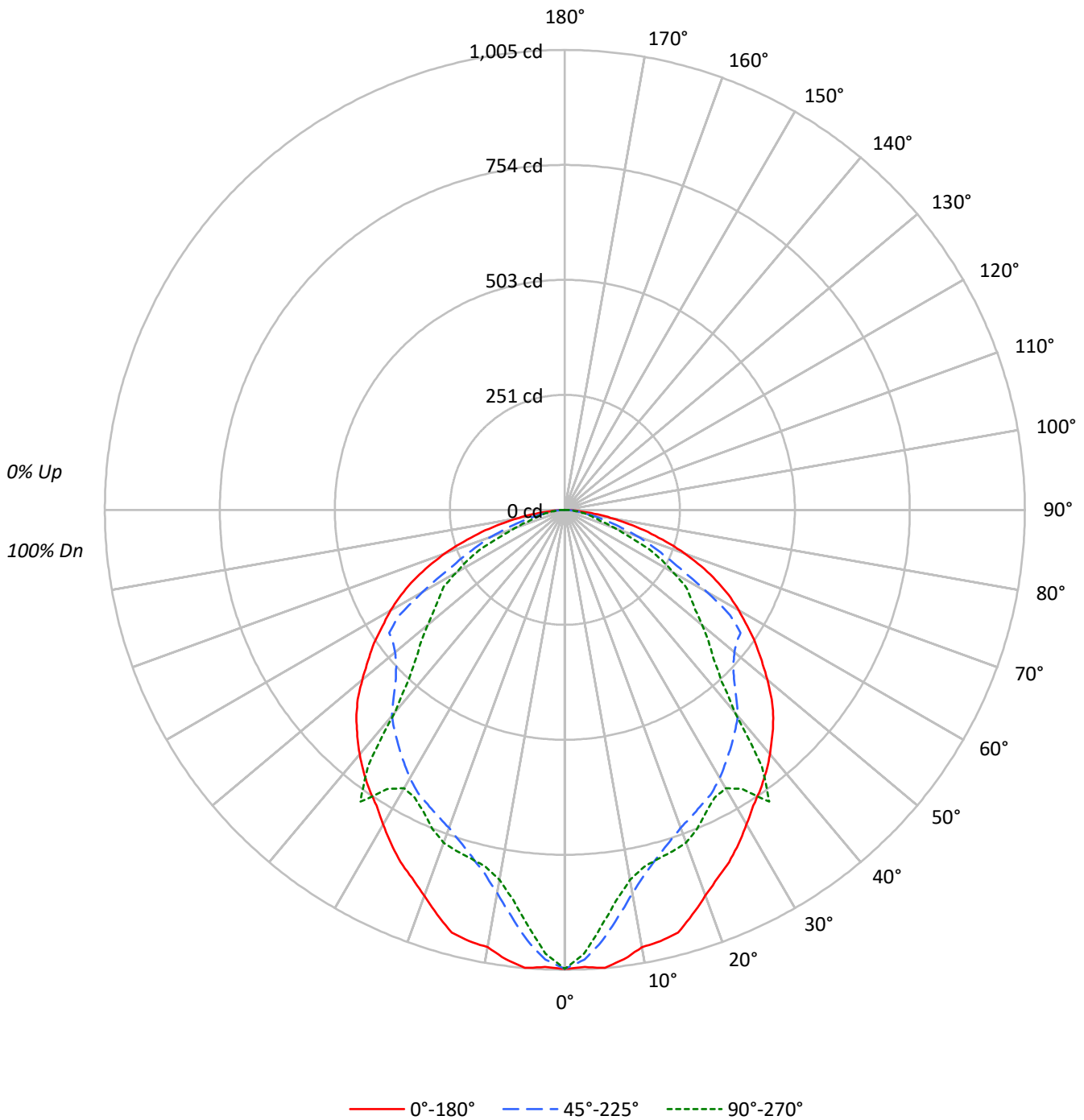
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2215.6 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.03 / 1.23
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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85				
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72				
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61				
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53				
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46				
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40				
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36				
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32				
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29				
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16193	16193	16193
5°	16285	15311	14801
10°	15910	13939	13454
15°	15982	13112	13190
20°	15412	12706	13297
25°	15128	12647	12987
30°	14801	12612	13093
35°	14688	12469	15347
40°	14701	12389	12168
45°	14707	11919	10481
50°	14501	12152	9826
55°	14317	13188	9427
60°	14173	11554	8845
65°	13925	9368	7691
70°	13152	7973	5495
75°	11728	6014	4167
80°	9586	3905	3905
85°	6002	3538	2649

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14707 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	4.0
10°-20°	231.9	10.5
20°-30°	340.1	15.4
30°-40°	412.3	18.6
40°-50°	405.0	18.3
50°-60°	352.8	15.9
60°-70°	244.6	11.0
70°-80°	115.4	5.2
80°-90°	24.8	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°	660.5	29.8
0°-40°	1072.8	48.4
0°-60°	1830.7	82.6
0°-90°	2215.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2215.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1003	1003	1003	1003	1003	
5°	1005	1004	945	915	913	95
15°	956	849	784	779	789	267
25°	849	720	710	732	729	391
35°	745	599	633	685	779	467
45°	644	473	522	542	459	496
55°	509	368	468	338	335	454
65°	364	253	245	201	201	359
75°	188	129	96	69	67	199
85°	32	21	19	15	14	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1002.9	1002.9	1002.9	1002.9	1002.9
2.5°	1000.0	1013.4	983.8	972.3	970.4
5°	1004.8	1003.8	944.7	915.1	913.2
7.5°	990.5	964.7	896.0	862.6	860.7
10°	970.4	925.6	850.2	820.6	820.6
12.5°	965.7	888.4	813.0	792.9	798.7
15°	956.1	849.2	784.4	778.6	789.1
17.5°	927.5	812.0	760.5	770.0	782.4
20°	897.0	783.4	739.5	762.4	773.9
22.5°	871.2	755.7	724.2	750.0	754.8
25°	849.2	719.5	709.9	731.9	729.0
27.5°	822.5	687.0	696.6	709.9	709.0
30°	793.9	658.4	676.5	689.9	702.3
32.5°	766.2	625.0	654.6	690.8	723.3
35°	745.2	599.2	632.6	685.1	778.6
37.5°	722.3	567.8	610.7	652.7	707.1
40°	697.5	533.4	587.8	646.0	577.3
42.5°	670.8	506.7	553.4	633.6	505.7
45°	644.1	473.3	522.0	542.0	459.0
47.5°	613.6	448.5	499.1	460.9	425.6
50°	577.3	423.7	483.8	412.2	391.2
52.5°	542.0	397.9	473.3	372.1	359.7
55°	508.6	368.3	468.5	337.8	334.9
57.5°	472.3	338.7	428.4	306.3	313.9
60°	438.9	310.1	357.8	279.6	273.9
62.5°	403.6	282.4	292.0	245.2	239.5
65°	364.5	252.9	245.2	201.3	201.3
67.5°	322.5	222.3	206.1	173.7	148.9
70°	278.6	192.7	168.9	131.7	116.4
72.5°	231.9	161.3	130.7	102.1	84.0
75°	188.0	128.8	96.4	68.7	66.8
77.5°	144.1	98.3	70.6	53.4	53.4
80°	103.1	70.6	42.0	41.0	42.0
82.5°	64.9	42.9	28.6	30.5	30.5
85°	32.4	21.0	19.1	15.3	14.3
87.5°	8.6	7.6	4.8	4.8	4.8
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	20.81	22.40	21.18	22.72	23.03	19.52	21.11	19.89	21.43	21.74
	3H	22.89	24.32	23.27	24.65	25.01	20.61	22.04	20.99	22.37	22.73
	4H	23.66	25.00	24.06	25.35	25.73	20.86	22.20	21.26	22.55	22.93
	6H	24.18	25.43	24.59	25.79	26.18	21.04	22.28	21.45	22.64	23.04
	8H	24.33	25.51	24.75	25.90	26.30	21.09	22.27	21.51	22.66	23.06
	12H	24.40	25.53	24.83	25.91	26.34	21.11	22.24	21.54	22.63	23.05
4H	2H	21.28	22.62	21.68	22.97	23.35	20.25	21.59	20.65	21.94	22.32
	3H	23.45	24.57	23.86	24.96	25.37	21.49	22.61	21.90	23.01	23.41
	4H	24.29	25.30	24.73	25.72	26.15	21.80	22.81	22.23	23.22	23.66
	6H	24.92	25.80	25.38	26.24	26.70	22.05	22.92	22.50	23.37	23.82
	8H	25.11	25.93	25.57	26.37	26.83	22.12	22.94	22.58	23.38	23.85
	12H	25.21	25.94	25.69	26.42	26.89	22.16	22.89	22.64	23.37	23.84
8H	4H	24.37	25.19	24.83	25.63	26.10	22.07	22.89	22.53	23.33	23.80
	6H	25.05	25.73	25.54	26.22	26.69	22.37	23.05	22.87	23.54	24.01
	8H	25.28	25.89	25.79	26.40	26.88	22.48	23.09	22.99	23.59	24.08
	12H	25.43	25.96	25.94	26.45	27.02	22.56	23.09	23.06	23.58	24.15
12H	4H	24.35	25.09	24.83	25.56	26.03	22.10	22.83	22.58	23.31	23.78
	6H	25.03	25.64	25.54	26.14	26.63	22.40	23.01	22.92	23.52	24.01
	8H	25.29	25.83	25.80	26.32	26.88	22.55	23.09	23.06	23.58	24.14