

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: P845546

Luminaire Tested: SQ2R-PC3-050D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845546
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-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

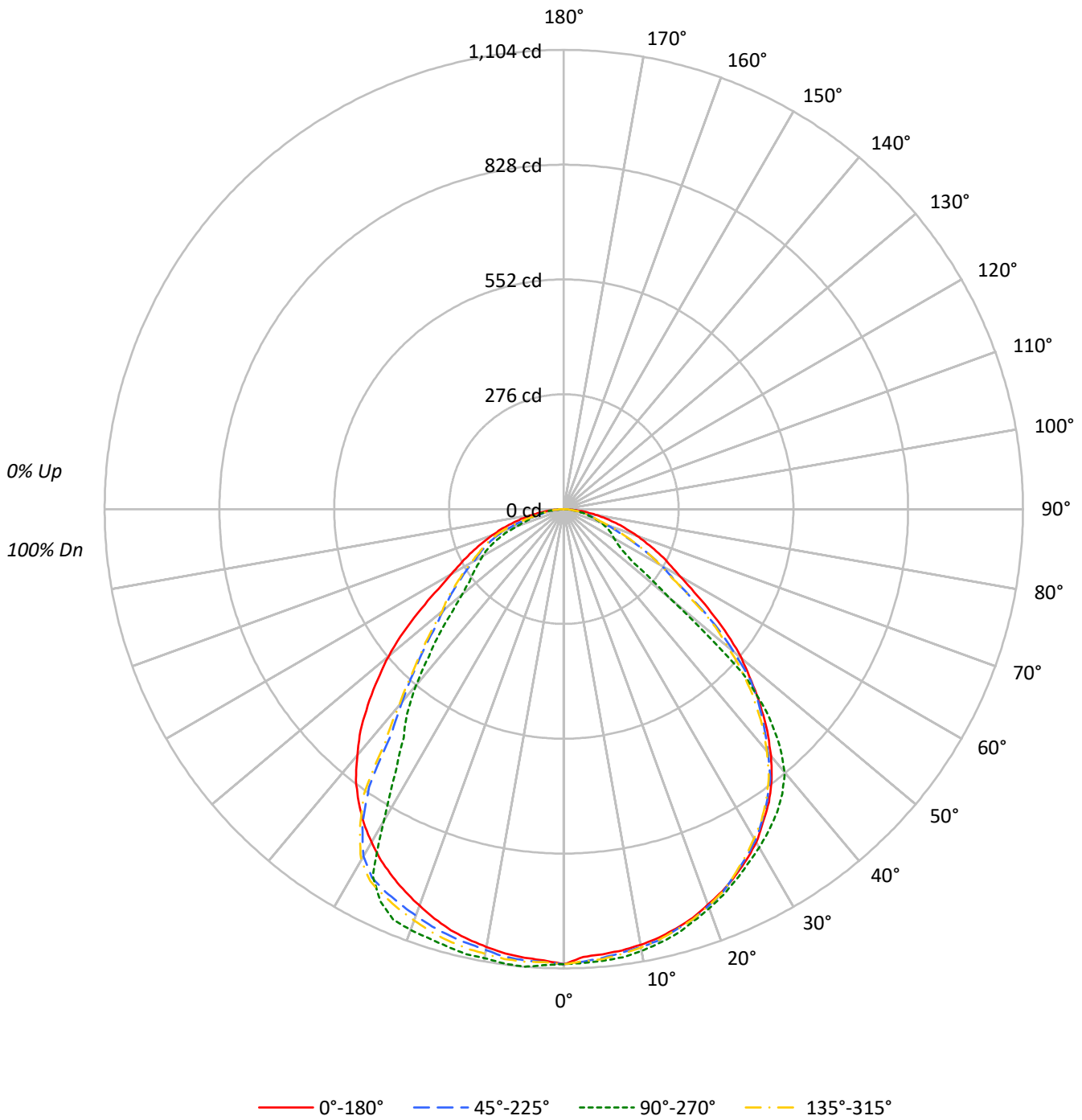
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2452.6 lumens
Efficiency: N/A
Efficacy: 137.8 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°	17664	17664	17664	17664
5°	17408	17663	17545	17900
10°	17438	17679	17525	17969
15°	17448	17656	17516	18181
20°	17395	17557	17431	18491
25°	17346	17496	17364	18558
30°	17257	17510	17236	16106
35°	16945	17584	16945	13234
40°	16335	17414	16267	11639
45°	15260	15737	15212	9624
50°	14001	8302	13818	8013
55°	12189	4799	11775	7448
60°	10401	4492	10065	7295
65°	9627	4596	9310	6911
70°	8837	4494	8592	5481
75°	8091	4042	7829	4959
80°	7197	3598	6806	4956
85°	5428	1945	5039	2519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 15737 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.7	4.2
10°-20°	299.7	12.2
20°-30°	457.9	18.7
30°-40°	517.5	21.1
40°-50°	452.4	18.4
50°-60°	299.3	12.2
60°-70°	195.6	8.0
70°-80°	102.3	4.2
80°-90°	24.1	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°	861.3	35.1
0°-40°	1378.8	56.2
0°-60°	2130.5	86.9
0°-90°	2452.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2452.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1094	1094	1094	1094	1094	
5°	1074	1090	1082	1104	1074	102
15°	1044	1056	1048	1088	1044	295
25°	974	982	975	1042	974	449
35°	860	892	860	671	860	536
45°	668	689	666	422	668	515
55°	433	170	418	265	433	389
65°	252	120	244	181	252	249
75°	130	65	126	80	130	138
85°	29	10	27	14	29	36
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°	1094.0	1094.0	1094.0	1094.0	1094.0	1094.0	1094.0	1094.0	1094.0	1094.0	1094.0
2.5°	1077.2	1104.4	1088.7	1087.7	1091.9	1092.9	1087.7	1099.2	1085.6	1100.2	1089.8
5°	1074.1	1101.3	1082.5	1080.4	1089.8	1086.6	1085.6	1096.0	1082.5	1094.0	1088.7
7.5°	1069.9	1095.0	1075.1	1074.1	1086.6	1082.5	1078.3	1090.8	1077.2	1089.8	1085.6
10°	1063.6	1085.6	1068.9	1069.9	1078.3	1074.1	1069.9	1080.4	1068.9	1084.5	1076.2
12.5°	1055.3	1077.2	1061.5	1058.4	1067.8	1060.5	1060.5	1068.9	1059.4	1076.2	1068.9
15°	1043.8	1065.7	1045.8	1047.9	1056.3	1049.0	1046.9	1057.4	1047.9	1064.7	1061.5
17.5°	1030.2	1049.0	1034.3	1035.4	1038.5	1035.4	1033.3	1041.7	1032.3	1050.0	1052.1
20°	1012.4	1034.3	1015.5	1015.5	1021.8	1013.4	1015.5	1022.8	1014.5	1035.4	1039.6
22.5°	994.6	1015.5	997.7	997.7	1003.0	991.5	996.7	1001.9	995.6	1018.7	1028.1
25°	973.7	990.4	970.5	976.8	982.1	971.6	970.5	978.9	974.7	997.7	1014.5
27.5°	950.7	965.3	946.5	954.9	960.1	952.8	943.4	953.8	951.7	977.9	998.8
30°	925.6	939.2	920.3	931.9	939.2	928.7	914.1	923.5	924.5	954.9	963.2
32.5°	892.1	905.7	887.9	906.8	917.2	902.6	885.8	891.1	895.2	925.6	901.5
35°	859.7	866.0	852.4	876.4	892.1	874.3	849.2	855.5	859.7	894.2	815.8
37.5°	821.0	821.0	815.8	841.9	862.8	836.7	809.5	812.6	821.0	850.3	679.8
40°	775.0	768.7	763.5	798.0	826.2	791.7	759.3	760.3	771.8	779.2	605.5
42.5°	723.7	716.4	714.3	750.9	767.7	739.4	705.9	707.0	723.7	680.8	536.5
45°	668.3	665.2	663.1	688.2	689.2	671.4	647.4	652.6	666.2	587.8	474.8
47.5°	611.8	609.7	608.7	588.8	584.6	572.1	584.6	596.1	607.6	490.5	418.3
50°	557.4	542.8	534.4	461.2	330.5	453.9	514.6	534.4	550.1	427.8	376.5
52.5°	497.8	485.3	459.1	352.5	209.2	350.4	450.8	475.9	485.3	389.1	345.1
55°	433.0	433.0	376.5	225.9	170.5	237.4	370.2	425.7	418.3	348.3	309.6
57.5°	371.3	383.8	312.7	151.6	150.6	151.6	310.6	378.6	357.7	315.8	280.3
60°	322.1	340.9	270.9	134.9	139.1	132.8	265.6	336.8	311.7	281.3	247.9
62.5°	285.5	301.2	223.8	123.4	130.7	121.3	224.9	300.2	276.1	256.2	225.9
65°	252.0	267.7	176.7	113.0	120.3	110.9	182.0	265.6	243.7	228.0	206.0
67.5°	216.5	231.1	140.1	102.5	107.7	101.4	146.4	231.1	211.3	200.8	179.9
70°	187.2	203.9	106.7	92.0	95.2	91.0	114.0	199.8	182.0	177.8	153.7
72.5°	157.9	171.5	82.6	81.6	80.5	79.5	83.7	170.5	153.7	146.4	119.2
75°	129.7	139.1	68.0	68.0	64.8	65.9	68.0	139.1	125.5	119.2	84.7
77.5°	102.5	109.8	55.4	53.3	50.2	50.2	54.4	106.7	99.4	92.0	56.5
80°	77.4	79.5	41.8	39.7	38.7	38.7	41.8	77.4	73.2	65.9	43.9
82.5°	52.3	43.9	28.2	29.3	28.2	28.2	27.2	45.0	49.2	33.5	32.4
85°	29.3	19.9	17.8	13.6	10.5	11.5	16.7	18.8	27.2	17.8	20.9
87.5°	10.5	8.4	3.1	4.2	3.1	3.1	3.1	8.4	8.4	6.3	3.1
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°	1094.0	1094.0	1094.0	1094.0	1094.0	1094.0
2.5°	1090.8	1097.1	1096.0	1089.8	1103.4	1077.2
5°	1091.9	1104.4	1098.1	1091.9	1100.2	1074.1
7.5°	1086.6	1101.3	1094.0	1090.8	1099.2	1069.9
10°	1083.5	1096.0	1089.8	1085.6	1094.0	1063.6
12.5°	1080.4	1095.0	1086.6	1081.4	1086.6	1055.3
15°	1072.0	1087.7	1082.5	1074.1	1074.1	1043.8
17.5°	1065.7	1081.4	1076.2	1064.7	1059.4	1030.2
20°	1061.5	1076.2	1068.9	1052.1	1043.8	1012.4
22.5°	1052.1	1068.9	1057.4	1039.6	1028.1	994.6
25°	1035.4	1041.7	1040.6	1024.9	1006.1	973.7
27.5°	991.5	994.6	997.7	1008.2	987.3	950.7
30°	915.1	863.9	927.7	974.7	964.3	925.6
32.5°	770.8	754.1	791.7	913.0	933.9	892.1
35°	691.3	671.4	702.8	837.7	899.4	859.7
37.5°	619.1	619.1	627.5	703.9	860.7	821.0
40°	567.9	552.2	575.2	617.1	802.2	775.0
42.5°	485.3	480.0	494.7	543.8	713.3	723.7
45°	427.8	421.5	435.1	482.1	617.1	668.3
47.5°	383.8	360.8	391.1	429.8	522.9	611.8
50°	343.0	319.0	348.3	381.7	443.4	557.4
52.5°	307.5	285.5	314.8	351.4	402.7	497.8
55°	270.9	264.6	278.2	316.9	362.9	433.0
57.5°	240.5	242.6	244.7	286.6	326.3	371.3
60°	221.7	225.9	224.9	257.3	296.0	322.1
62.5°	202.9	205.0	205.0	231.1	266.7	285.5
65°	180.9	180.9	183.0	212.3	241.6	252.0
67.5°	156.9	152.7	160.0	187.2	214.4	216.5
70°	123.4	116.1	128.6	162.1	191.4	187.2
72.5°	88.9	93.1	91.0	127.6	164.2	157.9
75°	73.2	79.5	74.3	91.0	133.9	129.7
77.5°	61.7	66.9	61.7	58.6	107.7	102.5
80°	49.2	53.3	49.2	45.0	79.5	77.4
82.5°	35.6	36.6	35.6	33.5	52.3	52.3
85°	16.7	13.6	18.8	22.0	20.9	29.3
87.5°	3.1	3.1	3.1	4.2	11.5	10.5
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	20.20	21.69	20.57	22.00	22.32	17.70	19.19	18.07	19.50	19.82
	3H	21.84	23.17	22.22	23.50	23.86	19.19	20.52	19.56	20.84	21.21
	4H	22.44	23.69	22.84	24.04	24.42	19.64	20.88	20.04	21.23	21.61
	6H	22.87	24.02	23.28	24.39	24.78	20.03	21.18	20.44	21.54	21.94
	8H	23.00	24.09	23.42	24.48	24.88	20.14	21.24	20.57	21.63	22.03
	12H	23.06	24.11	23.49	24.49	24.92	20.18	21.23	20.61	21.61	22.04
4H	2H	20.47	21.72	20.87	22.07	22.44	18.51	19.76	18.91	20.11	20.49
	3H	22.37	23.40	22.78	23.80	24.20	20.16	21.19	20.57	21.59	21.99
	4H	23.11	24.04	23.55	24.46	24.90	20.67	21.59	21.10	22.01	22.45
	6H	23.70	24.50	24.16	24.95	25.41	21.14	21.94	21.60	22.39	22.85
	8H	23.87	24.63	24.34	25.07	25.54	21.29	22.04	21.75	22.48	22.95
	12H	23.97	24.64	24.45	25.12	25.59	21.35	22.02	21.83	22.50	22.97
8H	4H	23.18	23.93	23.65	24.38	24.85	20.98	21.73	21.44	22.17	22.64
	6H	23.87	24.49	24.37	24.98	25.46	21.53	22.15	22.02	22.64	23.12
	8H	24.11	24.66	24.62	25.17	25.66	21.73	22.29	22.24	22.80	23.28
	12H	24.25	24.75	24.76	25.24	25.81	21.84	22.33	22.35	22.82	23.39
12H	4H	23.16	23.84	23.65	24.31	24.79	21.01	21.68	21.50	22.16	22.63
	6H	23.85	24.41	24.37	24.92	25.41	21.57	22.13	22.09	22.64	23.13
	8H	24.13	24.62	24.64	25.11	25.68	21.82	22.31	22.33	22.81	23.37