

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: P845541

Luminaire Tested: SQ2R-PC3-050D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845541
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-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

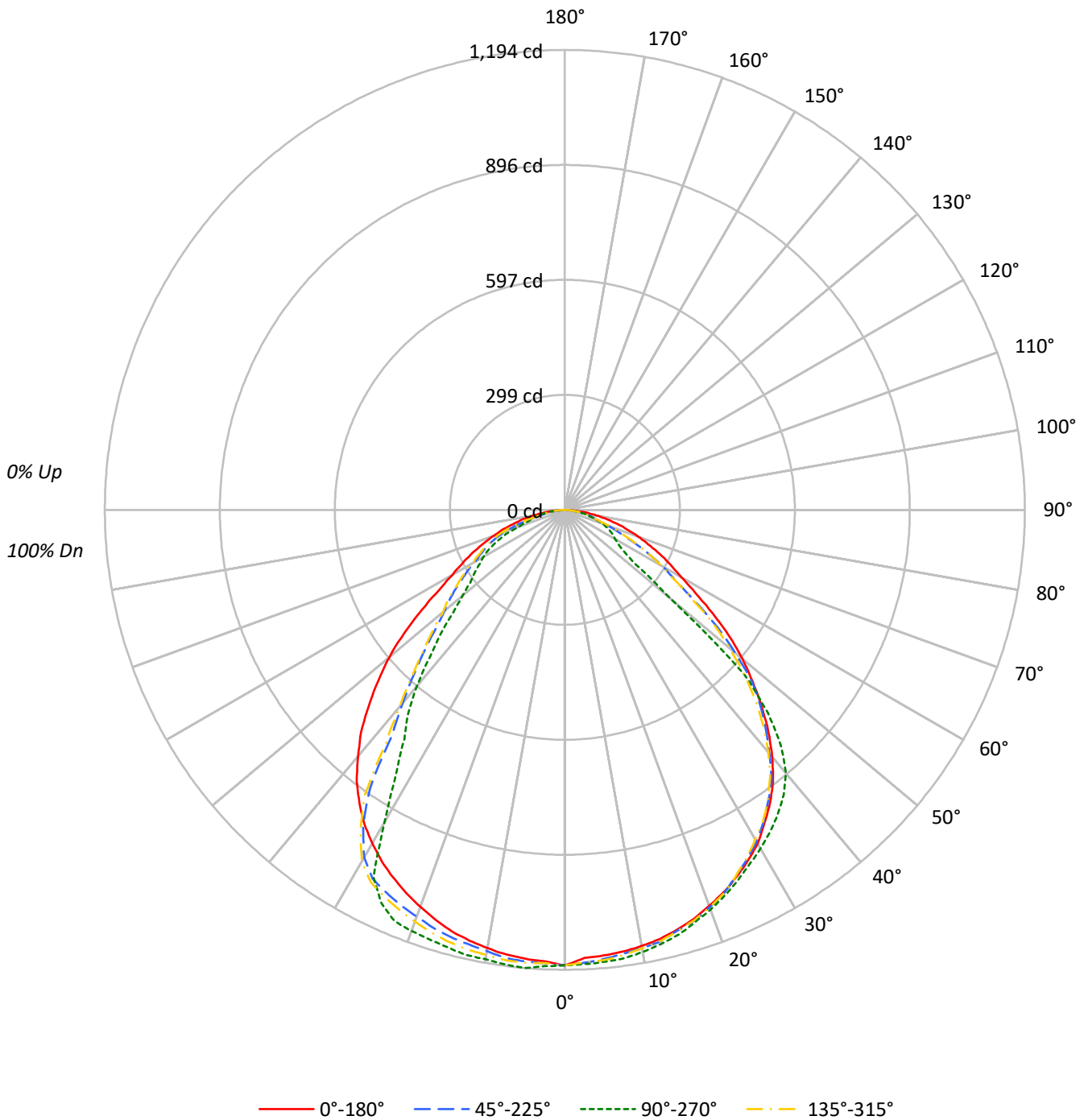
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2651.4 lumens
Efficiency: N/A
Efficacy: 149.0 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°	19096	19096	19096	19096
5°	18820	19094	18966	19352
10°	18853	19112	18944	19426
15°	18862	19087	18937	19656
20°	18806	18979	18844	19990
25°	18752	18914	18773	20061
30°	18655	18929	18634	17411
35°	18319	19009	18319	14308
40°	17658	18826	17587	12583
45°	16497	17013	16445	10403
50°	15136	8975	14938	8661
55°	13177	5188	12732	8054
60°	11244	4857	10879	7886
65°	10411	4967	10063	7473
70°	9555	4858	9286	5925
75°	8746	4373	8465	5359
80°	7782	3887	7355	5365
85°	5873	2093	5446	2723

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17013 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	4.2
10°-20°	324.0	12.2
20°-30°	495.0	18.7
30°-40°	559.5	21.1
40°-50°	489.0	18.4
50°-60°	323.6	12.2
60°-70°	211.4	8.0
70°-80°	110.6	4.2
80°-90°	26.1	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°	931.1	35.1
0°-40°	1490.6	56.2
0°-60°	2303.3	86.9
0°-90°	2651.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2651.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1183	1183	1183	1183	1183	
5°	1161	1178	1170	1194	1161	111
15°	1128	1142	1133	1176	1128	318
25°	1053	1062	1054	1126	1053	485
35°	929	964	929	726	929	579
45°	722	745	720	456	722	556
55°	468	184	452	286	468	420
65°	272	130	263	196	272	270
75°	140	70	136	86	140	149
85°	32	11	29	15	32	38
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°	1182.7	1182.7	1182.7	1182.7	1182.7	1182.7	1182.7	1182.7	1182.7	1182.7	1182.7
2.5°	1164.6	1194.0	1177.0	1175.9	1180.4	1181.5	1175.9	1188.3	1173.6	1189.4	1178.1
5°	1161.2	1190.6	1170.2	1168.0	1178.1	1174.7	1173.6	1184.9	1170.2	1182.7	1177.0
7.5°	1156.6	1183.8	1162.3	1161.2	1174.7	1170.2	1165.7	1179.3	1164.6	1178.1	1173.6
10°	1149.9	1173.6	1155.5	1156.6	1165.7	1161.2	1156.6	1168.0	1155.5	1172.5	1163.4
12.5°	1140.8	1164.6	1147.6	1144.2	1154.4	1146.5	1146.5	1155.5	1145.3	1163.4	1155.5
15°	1128.4	1152.1	1130.6	1132.9	1141.9	1134.0	1131.8	1143.1	1132.9	1151.0	1147.6
17.5°	1113.7	1134.0	1118.2	1119.3	1122.7	1119.3	1117.1	1126.1	1115.9	1135.2	1137.4
20°	1094.5	1118.2	1097.9	1097.9	1104.6	1095.6	1097.9	1105.8	1096.7	1119.3	1123.9
22.5°	1075.2	1097.9	1078.6	1078.6	1084.3	1071.8	1077.5	1083.2	1076.4	1101.2	1111.4
25°	1052.6	1070.7	1049.2	1056.0	1061.7	1050.4	1049.2	1058.3	1053.8	1078.6	1096.7
27.5°	1027.8	1043.6	1023.2	1032.3	1037.9	1030.0	1019.8	1031.1	1028.9	1057.2	1079.8
30°	1000.6	1015.3	995.0	1007.4	1015.3	1004.0	988.2	998.4	999.5	1032.3	1041.3
32.5°	964.4	979.1	959.9	980.3	991.6	975.7	957.7	963.3	967.8	1000.6	974.6
35°	929.4	936.2	921.5	947.5	964.4	945.2	918.1	924.9	929.4	966.7	881.9
37.5°	887.6	887.6	881.9	910.2	932.8	904.5	875.1	878.5	887.6	919.2	734.9
40°	837.8	831.0	825.4	862.7	893.2	855.9	820.8	822.0	834.4	842.3	654.6
42.5°	782.4	774.5	772.2	811.8	829.9	799.4	763.2	764.3	782.4	736.0	580.0
45°	722.5	719.1	716.8	744.0	745.1	725.9	699.9	705.5	720.2	635.4	513.3
47.5°	661.4	659.2	658.0	636.6	632.0	618.5	632.0	644.5	656.9	530.3	452.3
50°	602.6	586.8	577.8	498.6	357.3	490.7	556.3	577.8	594.7	462.4	407.0
52.5°	538.2	524.6	496.4	381.0	226.1	378.8	487.3	514.4	524.6	420.6	373.1
55°	468.1	468.1	407.0	244.2	184.3	256.7	400.2	460.2	452.3	376.5	334.7
57.5°	401.4	414.9	338.1	163.9	162.8	163.9	335.8	409.3	386.7	341.5	303.0
60°	348.2	368.6	292.8	145.9	150.4	143.6	287.2	364.1	336.9	304.1	268.0
62.5°	308.7	325.6	242.0	133.4	141.3	131.2	243.1	324.5	298.5	277.0	244.2
65°	272.5	289.4	191.1	122.1	130.0	119.8	196.7	287.2	263.4	246.5	222.7
67.5°	234.0	249.9	151.5	110.8	116.5	109.7	158.3	249.9	228.4	217.1	194.5
70°	202.4	220.5	115.3	99.5	102.9	98.4	123.2	216.0	196.7	192.2	166.2
72.5°	170.7	185.4	89.3	88.2	87.1	85.9	90.5	184.3	166.2	158.3	128.9
75°	140.2	150.4	73.5	73.5	70.1	71.2	73.5	150.4	135.7	128.9	91.6
77.5°	110.8	118.7	59.9	57.7	54.3	54.3	58.8	115.3	107.4	99.5	61.1
80°	83.7	85.9	45.2	43.0	41.8	41.8	45.2	83.7	79.1	71.2	47.5
82.5°	56.5	47.5	30.5	31.7	30.5	30.5	29.4	48.6	53.1	36.2	35.0
85°	31.7	21.5	19.2	14.7	11.3	12.4	18.1	20.4	29.4	19.2	22.6
87.5°	11.3	9.0	3.4	4.5	3.4	3.4	3.4	9.0	9.0	6.8	3.4
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°	1182.7	1182.7	1182.7	1182.7	1182.7	1182.7
2.5°	1179.3	1186.0	1184.9	1178.1	1192.8	1164.6
5°	1180.4	1194.0	1187.2	1180.4	1189.4	1161.2
7.5°	1174.7	1190.6	1182.7	1179.3	1188.3	1156.6
10°	1171.3	1184.9	1178.1	1173.6	1182.7	1149.9
12.5°	1168.0	1183.8	1174.7	1169.1	1174.7	1140.8
15°	1158.9	1175.9	1170.2	1161.2	1161.2	1128.4
17.5°	1152.1	1169.1	1163.4	1151.0	1145.3	1113.7
20°	1147.6	1163.4	1155.5	1137.4	1128.4	1094.5
22.5°	1137.4	1155.5	1143.1	1123.9	1111.4	1075.2
25°	1119.3	1126.1	1125.0	1108.0	1087.7	1052.6
27.5°	1071.8	1075.2	1078.6	1089.9	1067.3	1027.8
30°	989.3	933.9	1002.9	1053.8	1042.5	1000.6
32.5°	833.3	815.2	855.9	987.1	1009.7	964.4
35°	747.4	725.9	759.8	905.6	972.4	929.4
37.5°	669.3	669.3	678.4	760.9	930.5	887.6
40°	613.9	597.0	621.9	667.1	867.2	837.8
42.5°	524.6	519.0	534.8	587.9	771.1	782.4
45°	462.4	455.6	470.3	521.2	667.1	722.5
47.5°	414.9	390.1	422.9	464.7	565.3	661.4
50°	370.9	344.8	376.5	412.7	479.4	602.6
52.5°	332.4	308.7	340.3	379.9	435.3	538.2
55°	292.8	286.1	300.8	342.6	392.3	468.1
57.5°	260.0	262.3	264.6	309.8	352.8	401.4
60°	239.7	244.2	243.1	278.1	320.0	348.2
62.5°	219.3	221.6	221.6	249.9	288.3	308.7
65°	195.6	195.6	197.9	229.5	261.2	272.5
67.5°	169.6	165.1	173.0	202.4	231.8	234.0
70°	133.4	125.5	139.1	175.2	206.9	202.4
72.5°	96.1	100.6	98.4	137.9	177.5	170.7
75°	79.1	85.9	80.3	98.4	144.7	140.2
77.5°	66.7	72.4	66.7	63.3	116.5	110.8
80°	53.1	57.7	53.1	48.6	85.9	83.7
82.5°	38.4	39.6	38.4	36.2	56.5	56.5
85°	18.1	14.7	20.4	23.7	22.6	31.7
87.5°	3.4	3.4	3.4	4.5	12.4	11.3
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	20.47	21.96	20.84	22.27	22.59	17.97	19.46	18.34	19.77	20.09
	3H	22.11	23.44	22.49	23.77	24.13	19.46	20.79	19.84	21.12	21.48
	4H	22.71	23.96	23.11	24.31	24.69	19.91	21.15	20.31	21.50	21.88
	6H	23.14	24.29	23.55	24.66	25.05	20.30	21.45	20.71	21.81	22.21
	8H	23.27	24.36	23.69	24.75	25.15	20.42	21.51	20.84	21.90	22.30
	12H	23.33	24.38	23.76	24.76	25.19	20.45	21.50	20.89	21.88	22.31
4H	2H	20.74	21.99	21.14	22.34	22.72	18.78	20.03	19.18	20.38	20.76
	3H	22.64	23.67	23.05	24.07	24.47	20.43	21.46	20.84	21.86	22.26
	4H	23.38	24.31	23.82	24.73	25.17	20.94	21.86	21.37	22.28	22.72
	6H	23.97	24.78	24.43	25.22	25.68	21.41	22.22	21.87	22.66	23.12
	8H	24.14	24.90	24.61	25.34	25.81	21.56	22.31	22.02	22.76	23.22
	12H	24.24	24.91	24.72	25.39	25.86	21.62	22.29	22.10	22.77	23.24
8H	4H	23.45	24.20	23.92	24.65	25.12	21.25	22.00	21.71	22.44	22.91
	6H	24.14	24.76	24.64	25.25	25.73	21.80	22.42	22.29	22.91	23.39
	8H	24.38	24.93	24.89	25.45	25.93	22.00	22.56	22.51	23.07	23.56
	12H	24.53	25.02	25.04	25.51	26.08	22.11	22.60	22.62	23.10	23.66
12H	4H	23.44	24.11	23.92	24.59	25.06	21.28	21.95	21.77	22.43	22.90
	6H	24.12	24.68	24.64	25.19	25.68	21.84	22.40	22.36	22.91	23.40
	8H	24.40	24.89	24.91	25.39	25.95	22.09	22.58	22.60	23.08	23.64