

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: P845542

Luminaire Tested: SQ2R-PC3-050D-835-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845542
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-835-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

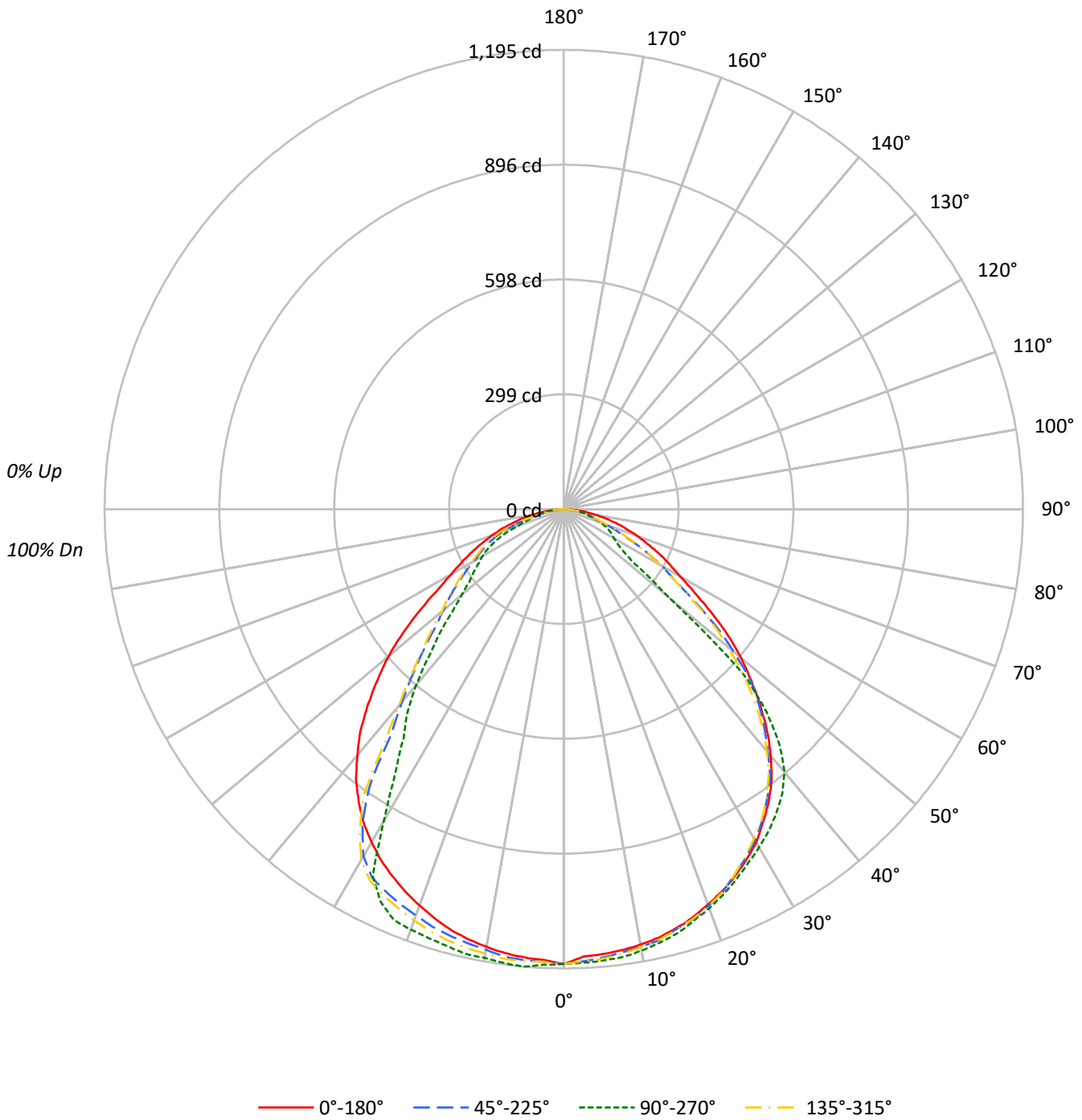
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2653.8 lumens
Efficiency: N/A
Efficacy: 149.1 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

TEST NUMBER: P845542
CATALOG NUMBER: SQ2R-PC3-050D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845542

CATALOG NUMBER: SQ2R-PC3-050D-835-UNV-STD-W-4

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	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57				57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50				50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	19112	19112	19112	19112
5°	18836	19112	18984	19368
10°	18869	19128	18962	19444
15°	18878	19106	18954	19672
20°	18823	18996	18861	20008
25°	18770	18930	18789	20079
30°	18672	18946	18651	17428
35°	18335	19026	18335	14320
40°	17675	18843	17603	12593
45°	16511	17029	16461	10414
50°	15151	8982	14953	8671
55°	13188	5194	12743	8059
60°	11257	4860	10889	7892
65°	10418	4970	10074	7480
70°	9564	4862	9295	5929
75°	8752	4379	8472	5365
80°	7782	3896	7364	5365
85°	5873	2093	5446	2723

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17029 cd/sqm



TEST NUMBER: P845542

CATALOG NUMBER: SQ2R-PC3-050D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.3	4.2
10°-20°	324.3	12.2
20°-30°	495.5	18.7
30°-40°	560.0	21.1
40°-50°	489.5	18.4
50°-60°	323.9	12.2
60°-70°	211.6	8.0
70°-80°	110.7	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°	932.0	35.1
0°-40°	1492.0	56.2
0°-60°	2305.3	86.9
0°-90°	2653.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2653.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1184	1184	1184	1184	1184	
5°	1162	1179	1171	1195	1162	111
15°	1129	1143	1134	1177	1129	319
25°	1054	1063	1055	1127	1054	486
35°	930	965	930	726	930	580
45°	723	746	721	456	723	557
55°	468	184	453	286	468	420
65°	273	130	264	196	273	270
75°	140	70	136	86	140	149
85°	32	11	29	15	32	38
90°	0	0	0	0	0	



TEST NUMBER: P845542

CATALOG NUMBER: SQ2R-PC3-050D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1165.6	1195.0	1178.1	1176.9	1181.5	1182.6	1176.9	1189.4	1174.7	1190.5	1179.2
5°	1162.2	1191.6	1171.3	1169.0	1179.2	1175.8	1174.7	1186.0	1171.3	1183.7	1178.1
7.5°	1157.7	1184.9	1163.4	1162.2	1175.8	1171.3	1166.7	1180.3	1165.6	1179.2	1174.7
10°	1150.9	1174.7	1156.6	1157.7	1166.7	1162.2	1157.7	1169.0	1156.6	1173.5	1164.5
12.5°	1141.8	1165.6	1148.6	1145.2	1155.4	1147.5	1147.5	1156.6	1146.4	1164.5	1156.6
15°	1129.4	1153.2	1131.7	1133.9	1143.0	1135.1	1132.8	1144.1	1133.9	1152.0	1148.6
17.5°	1114.7	1135.1	1119.2	1120.3	1123.7	1120.3	1118.1	1127.1	1117.0	1136.2	1138.5
20°	1095.5	1119.2	1098.8	1098.8	1105.6	1096.6	1098.8	1106.8	1097.7	1120.3	1124.9
22.5°	1076.2	1098.8	1079.6	1079.6	1085.3	1072.8	1078.5	1084.1	1077.3	1102.2	1112.4
25°	1053.6	1071.7	1050.2	1057.0	1062.6	1051.3	1050.2	1059.2	1054.7	1079.6	1097.7
27.5°	1028.7	1044.5	1024.2	1033.2	1038.9	1030.9	1020.8	1032.1	1029.8	1058.1	1080.7
30°	1001.5	1016.2	995.9	1008.3	1016.2	1004.9	989.1	999.3	1000.4	1033.2	1042.3
32.5°	965.3	980.0	960.8	981.2	992.5	976.6	958.5	964.2	968.7	1001.5	975.5
35°	930.2	937.0	922.3	948.3	965.3	946.1	918.9	925.7	930.2	967.6	882.7
37.5°	888.4	888.4	882.7	911.0	933.6	905.3	875.9	879.3	888.4	920.0	735.6
40°	838.6	831.8	826.1	863.5	894.0	856.7	821.6	822.7	835.2	843.1	655.2
42.5°	783.1	775.2	772.9	812.5	830.6	800.1	763.9	765.0	783.1	736.7	580.5
45°	723.1	719.7	717.5	744.6	745.8	726.5	700.5	706.2	720.9	636.0	513.8
47.5°	662.0	659.8	658.6	637.1	632.6	619.0	632.6	645.0	657.5	530.8	452.7
50°	603.2	587.3	578.3	499.1	357.6	491.1	556.8	578.3	595.3	462.9	407.4
52.5°	538.7	525.1	496.8	381.4	226.3	379.1	487.7	514.9	525.1	421.0	373.4
55°	468.5	468.5	407.4	244.4	184.5	256.9	400.6	460.6	452.7	376.8	335.0
57.5°	401.7	415.3	338.4	164.1	163.0	164.1	336.1	409.7	387.0	341.8	303.3
60°	348.6	368.9	293.1	146.0	150.5	143.7	287.4	364.4	337.2	304.4	268.2
62.5°	308.9	325.9	242.2	133.5	141.5	131.3	243.3	324.8	298.8	277.3	244.4
65°	272.7	289.7	191.3	122.2	130.1	120.0	196.9	287.4	263.7	246.7	222.9
67.5°	234.3	250.1	151.6	110.9	116.6	109.8	158.4	250.1	228.6	217.3	194.6
70°	202.6	220.7	115.4	99.6	103.0	98.5	123.4	216.1	196.9	192.4	166.4
72.5°	170.9	185.6	89.4	88.3	87.1	86.0	90.5	184.5	166.4	158.4	129.0
75°	140.3	150.5	73.6	73.6	70.2	71.3	73.6	150.5	135.8	129.0	91.7
77.5°	110.9	118.8	60.0	57.7	54.3	54.3	58.8	115.4	107.5	99.6	61.1
80°	83.7	86.0	45.3	43.0	41.9	41.9	45.3	83.7	79.2	71.3	47.5
82.5°	56.6	47.5	30.6	31.7	30.6	30.6	29.4	48.7	53.2	36.2	35.1
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	9.1	3.4	4.5	3.4	3.4	3.4	9.1	9.1	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



TEST NUMBER: P845542

CATALOG NUMBER: SQ2R-PC3-050D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1180.3	1187.1	1186.0	1179.2	1193.9	1165.6
5°	1181.5	1195.0	1188.2	1181.5	1190.5	1162.2
7.5°	1175.8	1191.6	1183.7	1180.3	1189.4	1157.7
10°	1172.4	1186.0	1179.2	1174.7	1183.7	1150.9
12.5°	1169.0	1184.9	1175.8	1170.1	1175.8	1141.8
15°	1160.0	1176.9	1171.3	1162.2	1162.2	1129.4
17.5°	1153.2	1170.1	1164.5	1152.0	1146.4	1114.7
20°	1148.6	1164.5	1156.6	1138.5	1129.4	1095.5
22.5°	1138.5	1156.6	1144.1	1124.9	1112.4	1076.2
25°	1120.3	1127.1	1126.0	1109.0	1088.7	1053.6
27.5°	1072.8	1076.2	1079.6	1090.9	1068.3	1028.7
30°	990.2	934.8	1003.8	1054.7	1043.4	1001.5
32.5°	834.0	815.9	856.7	987.9	1010.6	965.3
35°	748.0	726.5	760.5	906.5	973.2	930.2
37.5°	669.9	669.9	679.0	761.6	931.4	888.4
40°	614.5	597.5	622.4	667.7	868.0	838.6
42.5°	525.1	519.4	535.3	588.5	771.8	783.1
45°	462.9	456.1	470.8	521.7	667.7	723.1
47.5°	415.3	390.4	423.2	465.1	565.8	662.0
50°	371.2	345.2	376.8	413.1	479.8	603.2
52.5°	332.7	308.9	340.6	380.2	435.7	538.7
55°	293.1	286.3	301.0	342.9	392.7	468.5
57.5°	260.3	262.5	264.8	310.1	353.1	401.7
60°	239.9	244.4	243.3	278.4	320.3	348.6
62.5°	219.5	221.8	221.8	250.1	288.6	308.9
65°	195.8	195.8	198.0	229.7	261.4	272.7
67.5°	169.7	165.2	173.1	202.6	232.0	234.3
70°	133.5	125.6	139.2	175.4	207.1	202.6
72.5°	96.2	100.7	98.5	138.1	177.7	170.9
75°	79.2	86.0	80.3	98.5	144.9	140.3
77.5°	66.8	72.4	66.8	63.4	116.6	110.9
80°	53.2	57.7	53.2	48.7	86.0	83.7
82.5°	38.5	39.6	38.5	36.2	56.6	56.6
85°	18.1	14.7	20.4	23.8	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



TEST NUMBER: P845542

CATALOG NUMBER: SQ2R-PC3-050D-835-UNV-STD-W-4

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	20.48	21.96	20.84	22.28	22.59	17.98	19.46	18.34	19.78	20.09
	3H	22.11	23.44	22.49	23.77	24.14	19.46	20.79	19.84	21.12	21.48
	4H	22.71	23.96	23.11	24.31	24.69	19.91	21.16	20.31	21.51	21.88
	6H	23.14	24.30	23.56	24.66	25.05	20.30	21.45	20.71	21.82	22.21
	8H	23.27	24.36	23.70	24.75	25.16	20.42	21.51	20.84	21.90	22.30
	12H	23.33	24.38	23.77	24.76	25.19	20.46	21.50	20.89	21.89	22.32
4H	2H	20.74	21.99	21.14	22.34	22.72	18.79	20.03	19.19	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	23.39	24.31	23.82	24.73	25.17	20.94	21.87	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	24.15	24.90	24.61	25.34	25.81	21.56	22.31	22.03	22.76	23.23
	12H	24.24	24.91	24.73	25.39	25.86	21.62	22.29	22.11	22.77	23.25
8H	4H	23.46	24.21	23.92	24.65	25.12	21.25	22.00	21.71	22.45	22.91
	6H	24.14	24.76	24.64	25.26	25.73	21.80	22.42	22.30	22.91	23.39
	8H	24.38	24.94	24.90	25.45	25.94	22.00	22.56	22.52	23.07	23.56
	12H	24.53	25.02	25.04	25.51	26.08	22.11	22.61	22.62	23.10	23.66
12H	4H	23.44	24.11	23.92	24.59	25.06	21.29	21.96	21.77	22.44	22.91
	6H	24.13	24.68	24.64	25.19	25.68	21.85	22.40	22.36	22.91	23.40
	8H	24.40	24.90	24.91	25.39	25.95	22.09	22.59	22.60	23.08	23.65