

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: P845446

Luminaire Tested: SQ2R-BBM-050D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845446
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P559649)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-BBM-050D-935-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, DISCREET OPTICS - BLACK BAFFLE, WIDE 80-DEGREE OPTIC
500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

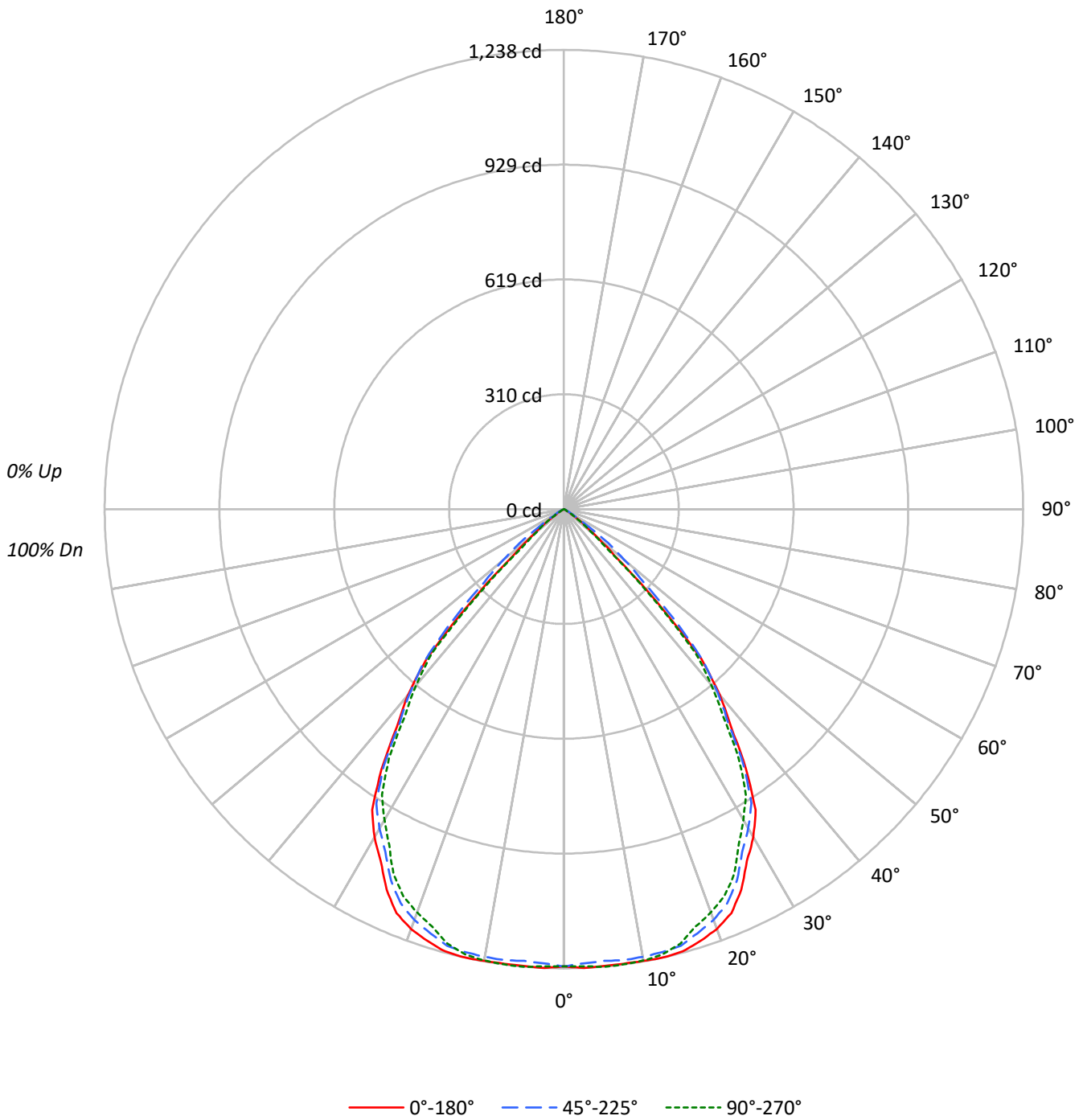
Lumens per Lamp: N/A
Luminaire Lumens: 1840.6 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P845446

CATALOG NUMBER: SQ2R-BBM-050D-935-UNV-STD-W-4

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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58
7	78	67	61	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19906	19906	19906
5°	20042	19819	20071
10°	20274	20094	20259
15°	20639	20363	20271
20°	20696	20254	19876
25°	20152	19662	19351
30°	19039	18526	18030
35°	16876	16677	16206
40°	13776	13582	13040
45°	8122	9586	7556
50°	2740	5343	2442
55°	929	1909	980
60°	87	562	29
65°	0	34	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9586 cd/sqm



TEST NUMBER: P845446

CATALOG NUMBER: SQ2R-BBM-050D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	6.4
10°-20°	344.8	18.7
20°-30°	507.5	27.6
30°-40°	518.5	28.2
40°-50°	298.1	16.2
50°-60°	52.1	2.8
60°-70°	1.9	0.1
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	970.1	52.7
0°-40°	1488.6	80.9
0°-60°	1838.7	99.9
0°-90°	1840.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1233	1233	1233	1233	1233	
5°	1237	1234	1223	1240	1238	118
15°	1235	1246	1218	1219	1213	348
25°	1131	1141	1104	1092	1086	517
35°	856	861	846	832	822	528
45°	356	414	420	398	331	278
55°	33	39	68	38	35	37
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P845446

CATALOG NUMBER: SQ2R-BBM-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1232.9	1232.9	1232.9	1232.9	1232.9
2.5°	1238.0	1235.2	1225.6	1236.5	1233.6
5°	1236.6	1233.9	1222.8	1240.2	1238.4
7.5°	1235.8	1233.7	1226.3	1241.4	1237.9
10°	1236.6	1236.6	1225.6	1239.2	1235.7
12.5°	1238.0	1241.6	1223.4	1234.1	1229.1
15°	1234.7	1245.5	1218.2	1219.0	1212.7
17.5°	1221.4	1235.8	1198.6	1189.8	1180.3
20°	1204.5	1219.7	1178.8	1164.9	1156.8
22.5°	1178.8	1193.3	1150.2	1138.5	1129.7
25°	1131.2	1141.1	1103.7	1091.7	1086.2
27.5°	1068.8	1073.9	1041.3	1028.9	1019.9
30°	1021.2	1021.2	993.7	979.6	967.1
32.5°	961.8	958.9	940.9	924.6	912.8
35°	856.2	860.7	846.1	832.1	822.2
37.5°	739.4	743.7	728.7	712.8	706.0
40°	653.6	657.2	644.4	627.7	618.7
42.5°	548.0	567.3	555.7	537.4	525.6
45°	355.7	414.0	419.8	398.1	330.9
47.5°	185.3	246.3	291.1	222.4	155.8
50°	109.1	148.5	212.7	121.4	97.2
52.5°	70.2	87.4	149.6	77.6	65.6
55°	33.0	39.2	67.8	38.4	34.8
57.5°	12.3	18.3	30.6	18.6	13.4
60°	2.7	8.2	17.4	5.4	0.9
62.5°	0.5	2.4	10.1	1.1	0.2
65°	0.0	0.0	0.9	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	2.42	3.56	2.79	3.87	4.18	2.01	3.14	2.38	3.46	3.77
	3H	2.26	3.25	2.64	3.58	3.95	1.85	2.84	2.23	3.17	3.53
	4H	2.17	3.08	2.57	3.43	3.82	1.76	2.67	2.16	3.02	3.41
	6H	2.07	2.91	2.49	3.28	3.67	1.66	2.49	2.08	2.87	3.26
	8H	2.02	2.80	2.45	3.20	3.61	1.61	2.39	2.04	2.79	3.19
	12H	1.97	2.72	2.40	3.10	3.53	1.56	2.31	1.99	2.69	3.12
4H	2H	2.18	3.09	2.58	3.44	3.83	1.77	2.68	2.17	3.03	3.42
	3H	2.00	2.74	2.42	3.14	3.55	1.59	2.33	2.01	2.73	3.14
	4H	1.89	2.54	2.33	2.97	3.41	1.48	2.13	1.92	2.56	3.00
	6H	1.79	2.35	2.26	2.80	3.27	1.38	1.94	1.85	2.39	2.86
	8H	1.72	2.24	2.20	2.69	3.17	1.31	1.83	1.79	2.28	2.76
	12H	1.66	2.12	2.15	2.60	3.08	1.25	1.71	1.74	2.20	2.67
8H	4H	1.72	2.24	2.20	2.69	3.17	1.31	1.83	1.79	2.28	2.76
	6H	1.60	2.02	2.11	2.52	3.01	1.19	1.61	1.70	2.11	2.60
	8H	1.53	1.91	2.06	2.43	2.92	1.12	1.50	1.65	2.02	2.51
	12H	1.47	1.81	1.99	2.30	2.88	1.06	1.40	1.58	1.89	2.47
12H	4H	1.66	2.12	2.15	2.60	3.08	1.25	1.71	1.74	2.20	2.67
	6H	1.53	1.91	2.06	2.43	2.92	1.12	1.50	1.65	2.02	2.51
	8H	1.47	1.81	1.99	2.30	2.88	1.06	1.40	1.58	1.89	2.47