

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: P845445

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

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845445
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-930-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, DISCREET OPTICS - BLACK BAFFLE, WIDE 80-DEGREE OPTIC
500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

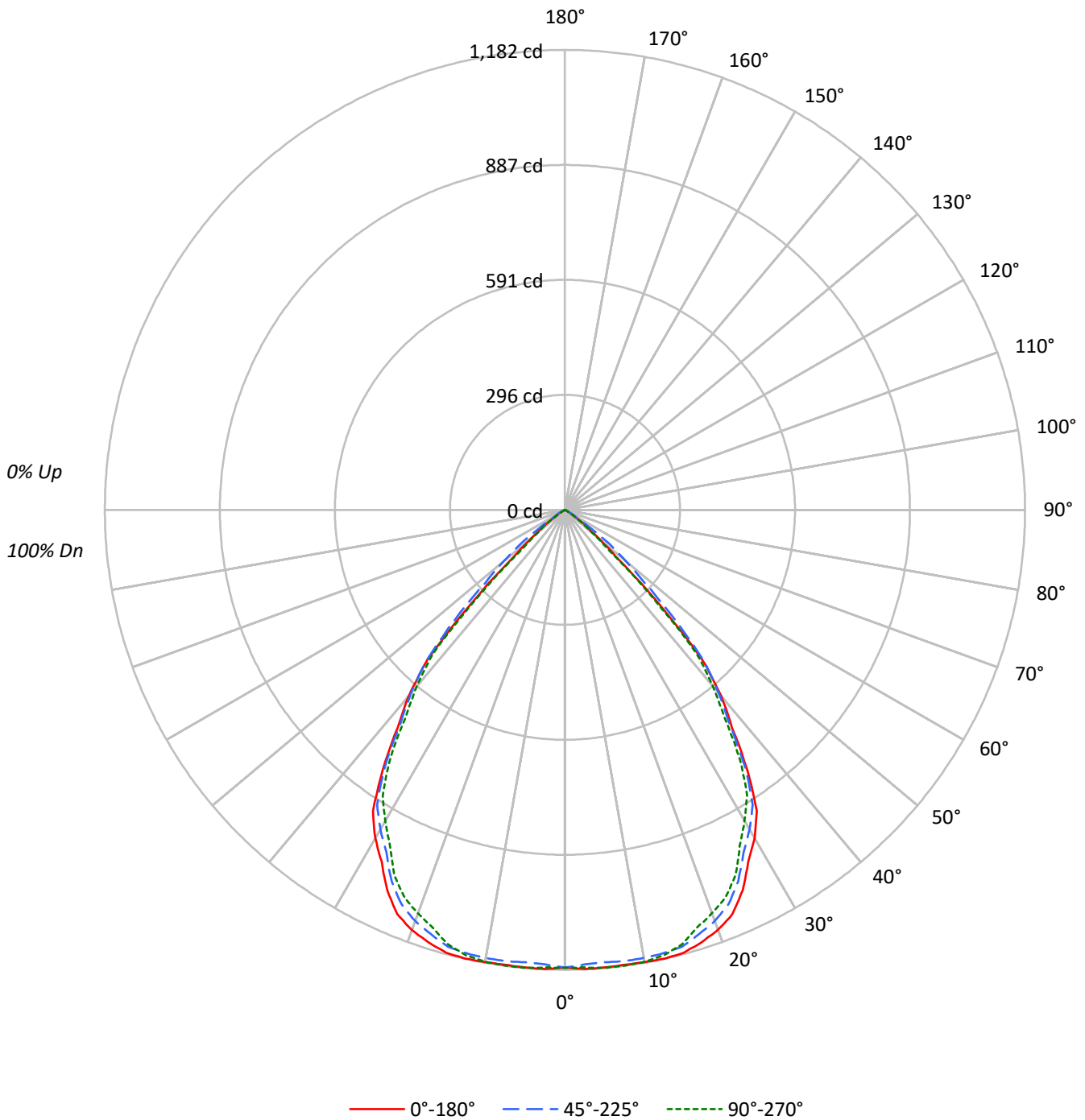
Lumens per Lamp: N/A
Luminaire Lumens: 1756.4 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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: P845445

CATALOG NUMBER: SQ2R-BBM-050D-930-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°	18996	18996	18996
5°	19125	18911	19152
10°	19346	19174	19331
15°	19694	19432	19343
20°	19747	19328	18967
25°	19229	18761	18465
30°	18166	17678	17204
35°	16103	15912	15465
40°	13146	12960	12444
45°	7750	9147	7211
50°	2615	5097	2328
55°	887	1821	935
60°	84	536	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: 9147 cd/sqm

TEST NUMBER: P845445

CATALOG NUMBER: SQ2R-BBM-050D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.4	6.4
10°-20°	329.0	18.7
20°-30°	484.2	27.6
30°-40°	494.7	28.2
40°-50°	284.4	16.2
50°-60°	49.7	2.8
60°-70°	1.8	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°	925.7	52.7
0°-40°	1420.4	80.9
0°-60°	1754.6	99.9
0°-90°	1756.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1756.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1180	1177	1167	1184	1182	113
15°	1178	1188	1162	1163	1157	332
25°	1079	1089	1053	1042	1036	493
35°	817	821	807	794	785	504
45°	339	395	401	380	316	265
55°	32	37	65	37	33	36
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: P845445

CATALOG NUMBER: SQ2R-BBM-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1176.5	1176.5	1176.5	1176.5	1176.5
2.5°	1181.4	1178.6	1169.5	1179.9	1177.2
5°	1180.0	1177.4	1166.8	1183.5	1181.7
7.5°	1179.3	1177.2	1170.2	1184.6	1181.2
10°	1180.0	1180.0	1169.5	1182.5	1179.1
12.5°	1181.4	1184.8	1167.4	1177.6	1172.8
15°	1178.2	1188.4	1162.5	1163.2	1157.2
17.5°	1165.4	1179.3	1143.7	1135.3	1126.3
20°	1149.3	1163.9	1124.9	1111.6	1103.9
22.5°	1124.9	1138.7	1097.6	1086.4	1078.0
25°	1079.4	1088.8	1053.1	1041.7	1036.5
27.5°	1019.9	1024.7	993.6	981.8	973.2
30°	974.4	974.4	948.2	934.8	922.8
32.5°	917.7	915.0	897.8	882.3	871.0
35°	817.0	821.2	807.3	794.0	784.6
37.5°	705.5	709.6	695.4	680.2	673.7
40°	623.7	627.1	614.9	599.0	590.4
42.5°	522.9	541.3	530.2	512.8	501.5
45°	339.4	395.0	400.6	379.9	315.8
47.5°	176.9	235.0	277.8	212.2	148.7
50°	104.1	141.7	202.9	115.8	92.7
52.5°	67.0	83.4	142.7	74.1	62.6
55°	31.5	37.4	64.7	36.6	33.2
57.5°	11.7	17.5	29.2	17.8	12.8
60°	2.6	7.8	16.6	5.2	0.9
62.5°	0.5	2.3	9.6	1.0	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



TEST NUMBER: P845445

CATALOG NUMBER: SQ2R-BBM-050D-930-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	2.26	3.39	2.62	3.70	4.02	1.85	2.99	2.22	3.30	3.61
	3H	2.09	3.08	2.47	3.41	3.78	1.69	2.68	2.07	3.01	3.37
	4H	2.00	2.92	2.41	3.27	3.66	1.60	2.51	2.00	2.86	3.25
	6H	1.91	2.74	2.32	3.11	3.51	1.50	2.34	1.92	2.71	3.10
	8H	1.85	2.64	2.29	3.03	3.44	1.45	2.23	1.88	2.63	3.03
	12H	1.80	2.55	2.24	2.94	3.37	1.40	2.15	1.83	2.53	2.96
4H	2H	2.01	2.93	2.42	3.28	3.67	1.61	2.52	2.01	2.87	3.26
	3H	1.84	2.57	2.25	2.98	3.38	1.43	2.17	1.85	2.58	2.98
	4H	1.73	2.38	2.17	2.80	3.25	1.32	1.98	1.76	2.40	2.85
	6H	1.63	2.19	2.10	2.63	3.11	1.22	1.78	1.69	2.23	2.70
	8H	1.56	2.08	2.03	2.53	3.00	1.15	1.68	1.63	2.13	2.60
	12H	1.50	1.95	1.99	2.44	2.92	1.10	1.55	1.58	2.04	2.51
8H	4H	1.56	2.08	2.03	2.53	3.00	1.15	1.68	1.63	2.13	2.60
	6H	1.44	1.86	1.95	2.36	2.84	1.03	1.45	1.54	1.96	2.44
	8H	1.36	1.74	1.89	2.26	2.76	0.96	1.34	1.49	1.86	2.35
	12H	1.31	1.64	1.83	2.14	2.72	0.90	1.24	1.42	1.73	2.31
12H	4H	1.50	1.95	1.99	2.44	2.92	1.10	1.55	1.58	2.04	2.51
	6H	1.36	1.74	1.89	2.26	2.76	0.96	1.34	1.49	1.86	2.35
	8H	1.31	1.64	1.83	2.14	2.72	0.90	1.24	1.42	1.73	2.31