

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: P853526

Luminaire Tested: SQ2-BBM-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

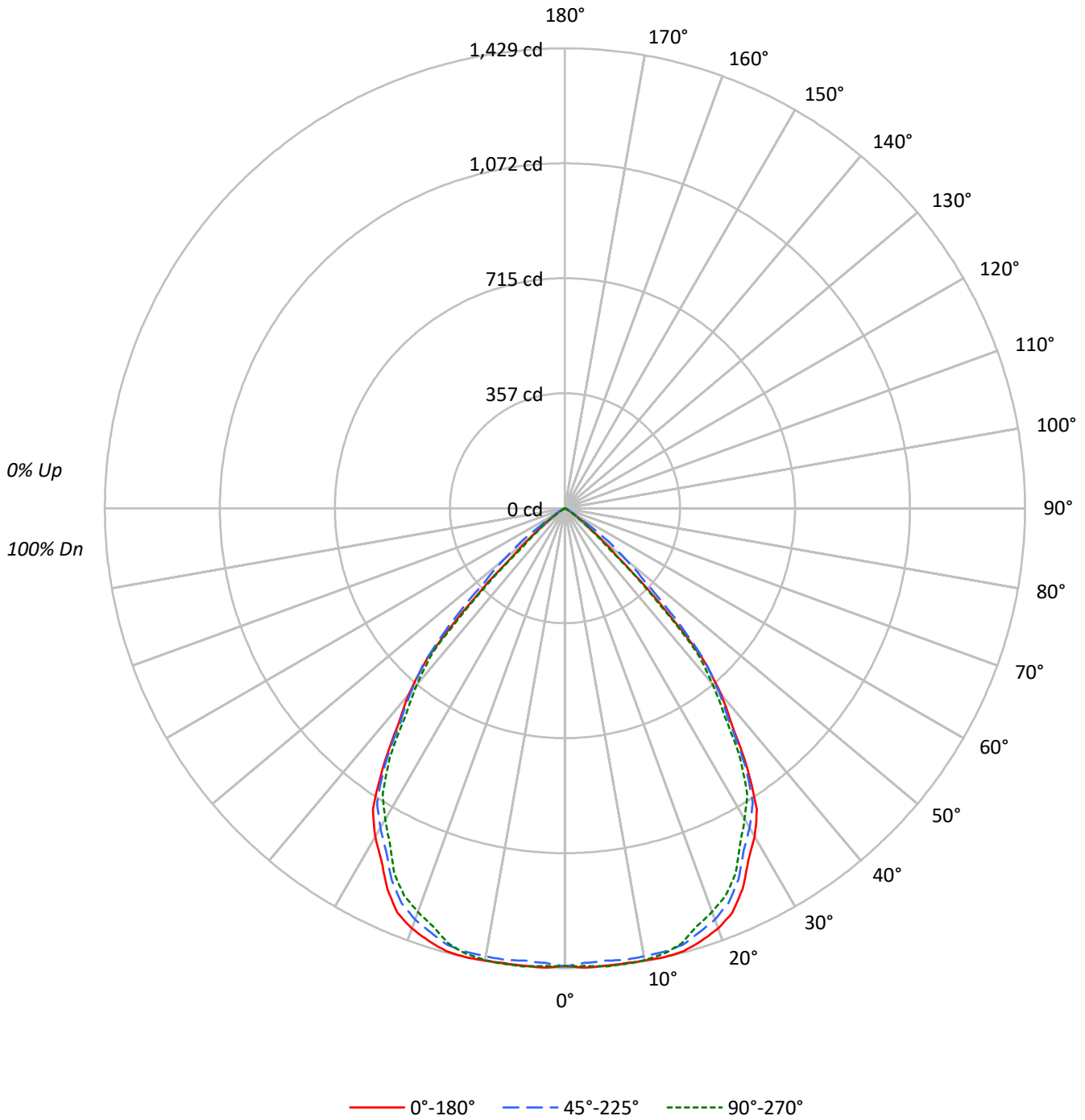
Test Method: LM-79-2019  
Report Number: P853526  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2124.0 lumens  
Efficiency: N/A  
Efficacy: 117.3 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): 18.1  
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: P853526  
CATALOG NUMBER: SQ2-BBM-050D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853526

CATALOG NUMBER: SQ2-BBM-050D-940-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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92				92
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84				84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				70
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63				63
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58				58
7	78	67	61	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53				53
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49				49
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	47	43	42				42

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	22971	22971	22971
5°	23127	22870	23161
10°	23394	23186	23378
15°	23816	23499	23392
20°	23881	23373	22936
25°	23254	22689	22331
30°	21970	21377	20804
35°	19474	19243	18701
40°	15896	15673	15049
45°	9371	11063	8720
50°	3162	6164	2816
55°	1072	2204	1132
60°	103	649	36
65°	0	42	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: 11063 cd/sqm



TEST NUMBER: P853526

CATALOG NUMBER: SQ2-BBM-050D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.9	6.4
10°-20°	397.9	18.7
20°-30°	585.6	27.6
30°-40°	598.3	28.2
40°-50°	344.0	16.2
50°-60°	60.1	2.8
60°-70°	2.2	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°	1119.4	52.7
0°-40°	1717.7	80.9
0°-60°	2121.8	99.9
0°-90°	2124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2124.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1423	1423	1423	1423	1423	
5°	1427	1424	1411	1431	1429	136
15°	1425	1437	1406	1407	1399	401
25°	1305	1317	1274	1260	1254	597
35°	988	993	976	960	949	610
45°	410	478	484	459	382	321
55°	38	45	78	44	40	43
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P853526

CATALOG NUMBER: SQ2-BBM-050D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1422.7	1422.7	1422.7	1422.7	1422.7
2.5°	1428.6	1425.3	1414.2	1426.9	1423.5
5°	1426.9	1423.8	1411.1	1431.1	1429.0
7.5°	1426.1	1423.6	1415.1	1432.5	1428.4
10°	1426.9	1426.9	1414.2	1430.0	1425.9
12.5°	1428.6	1432.8	1411.7	1424.0	1418.3
15°	1424.8	1437.2	1405.8	1406.7	1399.4
17.5°	1409.4	1426.1	1383.1	1372.9	1362.0
20°	1389.9	1407.5	1360.3	1344.2	1334.9
22.5°	1360.3	1377.0	1327.3	1313.7	1303.6
25°	1305.3	1316.7	1273.6	1259.7	1253.5
27.5°	1233.4	1239.1	1201.6	1187.2	1176.9
30°	1178.4	1178.4	1146.6	1130.4	1115.9
32.5°	1109.8	1106.5	1085.7	1067.0	1053.3
35°	988.0	993.1	976.3	960.2	948.8
37.5°	853.2	858.2	840.9	822.6	814.7
40°	754.2	758.3	743.6	724.3	714.0
42.5°	632.3	654.7	641.2	620.2	606.5
45°	410.4	477.6	484.5	459.4	381.9
47.5°	213.9	284.2	335.9	256.6	179.8
50°	125.9	171.4	245.4	140.0	112.1
52.5°	81.0	100.9	172.6	89.6	75.7
55°	38.1	45.3	78.3	44.3	40.2
57.5°	14.2	21.2	35.3	21.4	15.4
60°	3.2	9.4	20.1	6.2	1.1
62.5°	0.6	2.7	11.6	1.2	0.2
65°	0.0	0.0	1.1	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: P853526

CATALOG NUMBER: SQ2-BBM-050D-940-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	2.93	4.06	3.29	4.37	4.68	2.51	3.64	2.88	3.95	4.27
	3H	2.76	3.75	3.14	4.08	4.45	2.34	3.33	2.73	3.67	4.03
	4H	2.67	3.58	3.07	3.94	4.32	2.25	3.17	2.66	3.52	3.91
	6H	2.57	3.41	2.99	3.78	4.18	2.16	2.99	2.58	3.37	3.76
	8H	2.52	3.31	2.95	3.70	4.11	2.11	2.89	2.54	3.28	3.69
	12H	2.47	3.22	2.90	3.60	4.03	2.05	2.80	2.49	3.19	3.62
4H	2H	2.68	3.59	3.08	3.95	4.33	2.27	3.18	2.67	3.53	3.92
	3H	2.50	3.24	2.92	3.65	4.05	2.09	2.83	2.51	3.23	3.64
	4H	2.39	3.05	2.83	3.47	3.92	1.98	2.63	2.42	3.06	3.50
	6H	2.29	2.85	2.76	3.30	3.77	1.88	2.44	2.35	2.89	3.36
	8H	2.23	2.75	2.70	3.20	3.67	1.81	2.33	2.29	2.78	3.26
	12H	2.17	2.62	2.66	3.11	3.58	1.75	2.21	2.24	2.69	3.17
8H	4H	2.23	2.75	2.70	3.20	3.67	1.81	2.33	2.29	2.78	3.26
	6H	2.10	2.52	2.61	3.03	3.51	1.69	2.11	2.20	2.61	3.10
	8H	2.03	2.41	2.56	2.93	3.42	1.62	2.00	2.15	2.52	3.01
	12H	1.97	2.31	2.49	2.81	3.38	1.56	1.90	2.08	2.39	2.97
12H	4H	2.17	2.62	2.66	3.11	3.58	1.75	2.21	2.24	2.69	3.17
	6H	2.03	2.41	2.56	2.93	3.42	1.62	2.00	2.15	2.52	3.01
	8H	1.97	2.31	2.49	2.81	3.38	1.56	1.90	2.08	2.39	2.97