

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: P853493

Luminaire Tested: SQ2-BBM-025U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853493
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-025U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

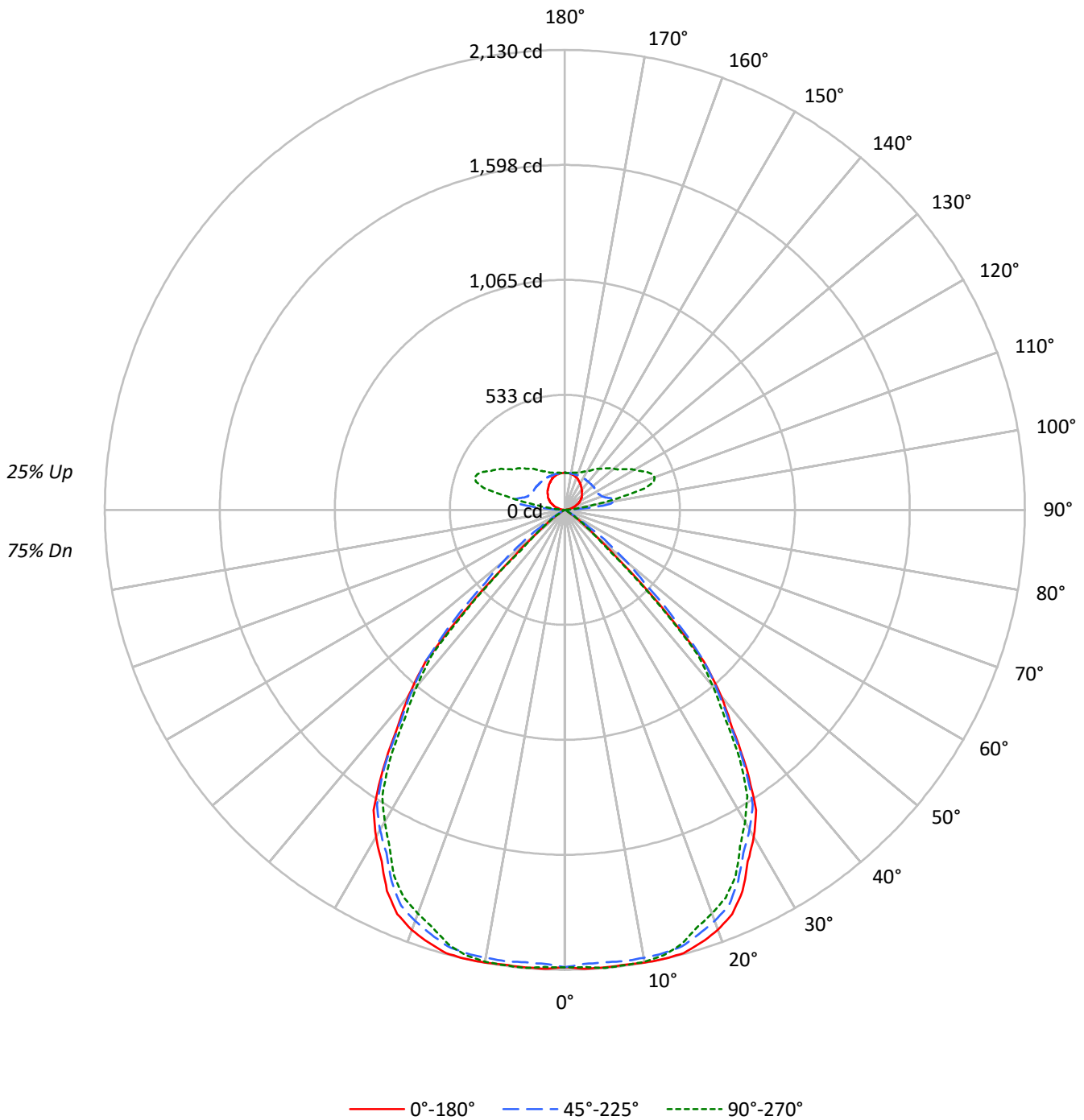
Lumens per Lamp: N/A
Luminaire Lumens: 4230.1 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 35
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

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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	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	106	103	100	97	101	98	96	93	90	88	86	82	80	79	74	73	72	69
2	99	94	89	85	95	90	86	82	82	79	76	76	73	71	69	68	66	63
3	93	85	79	75	89	82	77	73	76	72	68	70	67	64	64	62	60	57
4	87	78	71	66	83	75	69	65	70	65	61	65	61	58	60	57	55	52
5	81	71	64	59	77	69	63	58	64	59	55	60	56	52	56	52	50	47
6	76	65	59	54	73	63	57	52	59	54	50	55	51	48	52	48	46	43
7	71	60	53	48	68	58	52	48	55	49	46	51	47	44	48	44	42	40
8	67	56	49	44	64	54	48	43	51	45	42	48	43	40	45	41	38	36
9	63	52	45	40	60	50	44	40	47	42	38	45	40	37	42	38	35	34
10	59	48	41	37	57	47	41	36	44	39	35	42	37	34	39	35	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34197	34197	34197
5°	34465	34088	34517
10°	34898	34534	34846
15°	35527	34997	34820
20°	35574	34826	34189
25°	34693	33806	33335
30°	32613	31903	31092
35°	28945	28716	27859
40°	23739	23336	22466
45°	14152	16646	13282
50°	4418	9236	4177
55°	1669	3282	1669
60°	103	924	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: 16646 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.5	4.8
10°-20°	593.2	14.0
20°-30°	872.7	20.6
30°-40°	892.0	21.1
40°-50°	513.9	12.1
50°-60°	88.6	2.1
60°-70°	3.2	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	69.4	1.6
100°-110°	215.7	5.1
110°-120°	211.0	5.0
120°-130°	172.3	4.1
130°-140°	140.9	3.3
140°-150°	110.0	2.6
150°-160°	79.4	1.9
160°-170°	48.5	1.1
170°-180°	16.4	0.4
0°-30°	1668.4	39.4
0°-40°	2560.4	60.5
0°-60°	3162.8	74.8
0°-90°	3166.6	74.9
90°-120°	496.1	11.7
90°-150°	919.3	21.7
90°-180°	1064.0	25.2
0°-180°	4230.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2118	2118	2118	2118	2118	
5°	2126	2121	2103	2132	2130	203
15°	2125	2143	2094	2096	2083	598
25°	1947	1965	1898	1878	1871	889
35°	1468	1480	1457	1429	1413	907
45°	620	712	729	688	582	480
55°	59	68	117	66	59	63
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	356	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	209	227	83
155°	150	156	170	187	193	69
165°	165	166	171	177	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2118.0	2118.0	2118.0	2118.0	2118.0
2.5°	2127.4	2121.6	2104.5	2123.9	2119.7
5°	2126.5	2121.3	2103.2	2131.8	2129.7
7.5°	2125.2	2121.7	2108.9	2132.3	2127.1
10°	2128.6	2127.6	2106.4	2130.6	2125.4
12.5°	2130.3	2136.7	2103.8	2122.9	2113.6
15°	2125.4	2143.1	2093.7	2096.5	2083.1
17.5°	2101.7	2126.6	2060.8	2048.7	2029.7
20°	2070.4	2099.4	2026.9	2006.4	1989.8
22.5°	2026.3	2052.8	1983.7	1958.2	1944.9
25°	1947.4	1965.1	1897.6	1878.4	1871.2
27.5°	1835.8	1840.7	1790.0	1766.1	1756.7
30°	1749.3	1749.3	1711.2	1685.3	1667.7
32.5°	1648.4	1646.0	1618.8	1590.4	1572.8
35°	1468.5	1479.9	1456.9	1429.0	1413.4
37.5°	1273.8	1278.1	1260.6	1230.7	1217.6
40°	1126.3	1127.3	1107.2	1085.6	1065.9
42.5°	954.2	975.2	956.3	922.3	914.2
45°	619.8	712.0	729.0	688.4	581.7
47.5°	311.5	426.3	498.2	386.9	274.0
50°	175.9	244.3	367.7	204.7	166.3
52.5°	117.4	147.6	254.9	133.9	112.1
55°	59.3	67.6	116.6	65.6	59.3
57.5°	20.1	31.3	50.6	32.4	22.3
60°	3.2	13.5	28.6	10.4	1.1
62.5°	0.6	3.5	17.6	2.9	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	0.2	0.6	0.6	0.6
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.2	13.2	10.7
95°	9.5	28.0	127.2	46.9	30.5
97.5°	17.2	36.4	210.7	131.2	82.6
100°	23.1	40.6	237.6	222.3	148.2
102.5°	29.0	45.7	232.6	317.4	249.2
105°	37.8	53.3	212.4	405.4	386.9
107.5°	46.7	61.1	193.0	412.2	432.5
110°	52.6	67.0	182.9	402.5	442.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.5	72.0	177.9	385.1	435.9
115°	67.3	79.6	172.4	355.7	416.3
117.5°	75.9	87.2	170.1	327.5	389.6
120°	81.0	92.3	169.3	311.5	371.1
122.5°	86.0	97.3	170.1	297.9	352.6
125°	93.6	103.9	170.3	279.7	328.0
127.5°	99.7	110.2	170.3	266.1	307.2
130°	103.0	114.3	170.3	258.4	295.4
132.5°	107.2	118.5	169.5	251.6	286.2
135°	112.5	124.8	169.3	241.4	271.2
137.5°	118.6	129.9	169.3	231.3	258.4
140°	122.0	133.3	169.3	224.5	249.2
142.5°	126.2	136.6	169.3	217.7	239.9
145°	131.4	141.7	169.3	208.6	227.1
147.5°	137.7	146.6	170.3	200.1	214.7
150°	141.9	149.1	170.3	195.8	207.1
152.5°	145.3	151.7	170.3	191.6	201.2
155°	150.3	155.5	170.3	187.3	193.4
157.5°	155.4	159.3	170.3	183.4	187.4
160°	158.8	161.8	170.3	180.9	184.0
162.5°	161.3	163.5	170.3	179.2	181.5
165°	165.1	166.1	171.4	176.7	178.7
167.5°	167.4	167.6	170.3	175.2	176.2
170°	168.2	169.2	170.3	173.5	174.5
172.5°	169.9	170.1	171.2	172.6	172.8
175°	171.4	171.4	171.4	172.4	171.4
177.5°	171.4	171.4	171.4	171.4	171.4
180°	171.4	171.4	171.4	171.4	171.4



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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	2.24	3.10	2.99	3.83	4.71	1.86	2.72	2.61	3.46	4.34
	3H	2.06	2.81	2.82	3.56	4.47	1.68	2.43	2.44	3.18	4.10
	4H	1.96	2.66	2.74	3.42	4.34	1.58	2.28	2.36	3.04	3.97
	6H	1.85	2.49	2.64	3.26	4.20	1.48	2.12	2.27	2.89	3.82
	8H	1.79	2.40	2.59	3.19	4.12	1.42	2.03	2.22	2.81	3.75
	12H	1.74	2.31	2.54	3.09	4.05	1.36	1.94	2.16	2.72	3.68
4H	2H	1.96	2.67	2.75	3.42	4.35	1.59	2.29	2.37	3.05	3.98
	3H	1.77	2.34	2.56	3.14	4.08	1.40	1.97	2.19	2.76	3.70
	4H	1.66	2.17	2.46	2.97	3.94	1.28	1.80	2.09	2.60	3.57
	6H	1.55	1.99	2.38	2.81	3.79	1.18	1.62	2.00	2.44	3.42
	8H	1.49	1.90	2.31	2.71	3.70	1.11	1.52	1.94	2.34	3.32
	12H	1.42	1.78	2.26	2.62	3.61	1.04	1.41	1.89	2.25	3.24
8H	4H	1.49	1.90	2.31	2.71	3.70	1.11	1.52	1.94	2.34	3.32
	6H	1.37	1.70	2.22	2.56	3.55	0.99	1.33	1.84	2.19	3.17
	8H	1.30	1.60	2.17	2.45	3.46	0.93	1.22	1.79	2.08	3.09
	12H	1.24	1.50	2.10	2.34	3.41	0.86	1.12	1.72	1.97	3.03
12H	4H	1.42	1.78	2.26	2.62	3.61	1.04	1.41	1.89	2.25	3.24
	6H	1.30	1.60	2.17	2.45	3.46	0.93	1.22	1.79	2.08	3.09
	8H	1.24	1.50	2.10	2.34	3.41	0.86	1.12	1.72	1.97	3.03