

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: P855523

Luminaire Tested: SQ2-PH1-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

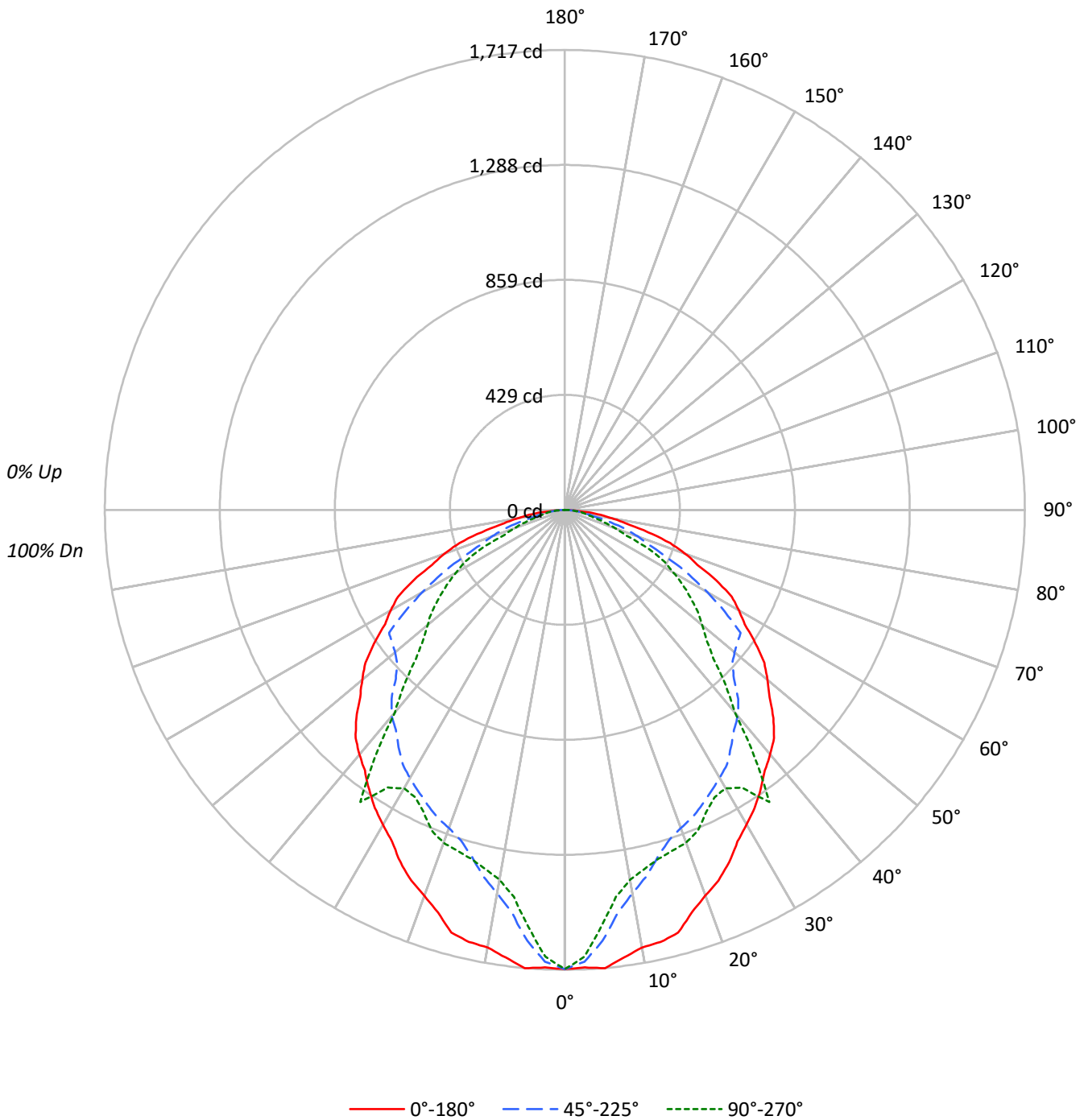
Test Method: LM-79-2019  
Report Number: P855523  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-075D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3791.7 lumens  
Efficiency: N/A  
Efficacy: 142.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.7  
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	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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85				85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72				72
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	72	67	63	61				61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53				53
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46				46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40				40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36				36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32				32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29				29
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26				26

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

	0°	45°	90°
0°	27679	27679	27679
5°	27835	26172	25298
10°	27196	23825	22997
15°	27318	22410	22547
20°	26344	21720	22727
25°	25860	21618	22199
30°	25299	21559	22380
35°	25109	21313	26233
40°	25130	21176	20799
45°	25138	20372	17915
50°	24787	20773	16799
55°	24473	22542	16113
60°	24228	19753	15116
65°	23805	16011	13150
70°	22480	13629	9394
75°	20044	10274	7124
80°	16383	6676	6676
85°	10263	6058	4520

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25138 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.8	4.0
10°-20°	396.8	10.5
20°-30°	581.8	15.3
30°-40°	704.5	18.6
40°-50°	692.8	18.3
50°-60°	603.1	15.9
60°-70°	419.3	11.1
70°-80°	198.8	5.2
80°-90°	43.8	1.2
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°	1129.3	29.8
0°-40°	1833.9	48.4
0°-60°	3129.8	82.5
0°-90°	3791.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3791.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1717	1716	1615	1564	1561	161
15°	1634	1456	1341	1331	1349	456
25°	1452	1235	1214	1251	1246	668
35°	1274	1030	1081	1175	1331	798
45°	1101	816	892	923	785	846
55°	869	635	801	577	572	777
65°	623	436	419	344	344	612
75°	321	222	165	117	114	340
85°	55	36	33	26	24	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1714.3	1714.3	1714.3	1714.3	1714.3
2.5°	1710.3	1728.2	1688.2	1672.4	1669.8
5°	1717.4	1715.9	1614.8	1564.1	1560.9
7.5°	1686.1	1636.7	1515.9	1460.0	1457.5
10°	1658.8	1583.8	1453.2	1402.7	1402.7
12.5°	1652.2	1533.9	1402.3	1365.0	1372.7
15°	1634.3	1455.7	1340.7	1331.3	1348.9
17.5°	1575.0	1382.6	1292.8	1314.1	1334.5
20°	1533.2	1343.4	1264.1	1303.6	1322.7
22.5°	1498.0	1305.7	1243.1	1286.4	1296.7
25°	1451.6	1234.8	1213.5	1250.9	1246.1
27.5°	1396.1	1169.8	1183.8	1206.7	1209.6
30°	1357.0	1130.5	1156.4	1179.7	1200.4
32.5°	1319.2	1085.1	1126.3	1181.6	1229.1
35°	1273.9	1029.8	1081.3	1174.6	1330.9
37.5°	1226.2	964.7	1036.0	1114.5	1164.2
40°	1192.3	918.0	1004.7	1101.6	986.8
42.5°	1155.7	881.4	957.8	1082.8	888.9
45°	1100.9	815.5	892.2	923.3	784.6
47.5°	1036.3	764.3	847.9	770.0	715.7
50°	986.8	730.1	827.0	703.8	668.8
52.5°	938.5	694.6	812.6	649.2	625.7
55°	869.4	634.9	800.8	577.3	572.4
57.5°	796.0	574.3	708.2	514.7	522.9
60°	750.3	535.0	611.7	477.7	468.1
62.5°	702.0	496.9	521.6	430.7	421.2
65°	623.1	436.4	419.1	344.2	344.2
67.5°	536.3	373.6	339.5	281.6	243.3
70°	476.2	332.7	288.7	224.5	199.0
72.5°	412.3	289.2	236.5	184.0	154.7
75°	321.3	222.4	164.7	117.4	114.2
77.5°	232.2	160.2	110.9	87.1	87.4
80°	176.2	121.9	71.8	70.2	71.8
82.5°	123.9	83.8	53.5	55.7	56.1
85°	55.4	36.3	32.7	26.0	24.4
87.5°	11.8	10.5	6.6	6.6	6.6
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	22.71	24.30	23.07	24.61	24.93	21.38	22.97	21.74	23.28	23.60
	3H	24.78	26.21	25.16	26.54	26.90	22.47	23.90	22.84	24.22	24.58
	4H	25.55	26.89	25.95	27.24	27.62	22.71	24.06	23.11	24.40	24.78
	6H	26.07	27.31	26.48	27.68	28.07	22.89	24.14	23.30	24.50	24.89
	8H	26.21	27.40	26.64	27.79	28.19	22.94	24.13	23.37	24.52	24.92
	12H	26.28	27.42	26.71	27.80	28.23	22.96	24.10	23.39	24.48	24.91
4H	2H	23.17	24.51	23.56	24.86	25.24	22.10	23.45	22.50	23.80	24.17
	3H	25.34	26.46	25.75	26.85	27.25	23.35	24.47	23.76	24.87	25.27
	4H	26.18	27.19	26.61	27.60	28.04	23.65	24.66	24.09	25.08	25.51
	6H	26.81	27.68	27.26	28.13	28.58	23.90	24.78	24.36	25.22	25.68
	8H	26.99	27.81	27.45	28.25	28.72	23.97	24.80	24.44	25.24	25.70
	12H	27.09	27.83	27.57	28.30	28.77	24.02	24.75	24.50	25.23	25.70
8H	4H	26.25	27.07	26.72	27.52	27.98	23.93	24.75	24.39	25.19	25.66
	6H	26.94	27.61	27.43	28.10	28.58	24.23	24.91	24.72	25.40	25.87
	8H	27.17	27.77	27.68	28.28	28.77	24.34	24.94	24.85	25.45	25.94
	12H	27.31	27.85	27.82	28.34	28.90	24.41	24.95	24.92	25.44	26.00
12H	4H	26.24	26.97	26.72	27.45	27.92	23.96	24.69	24.44	25.17	25.64
	6H	26.91	27.52	27.43	28.03	28.52	24.26	24.87	24.77	25.38	25.87
	8H	27.18	27.72	27.69	28.21	28.77	24.41	24.95	24.92	25.44	26.00