

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: P854910

Luminaire Tested: SQ2-PR1-025U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854910
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-025U-075D-830-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

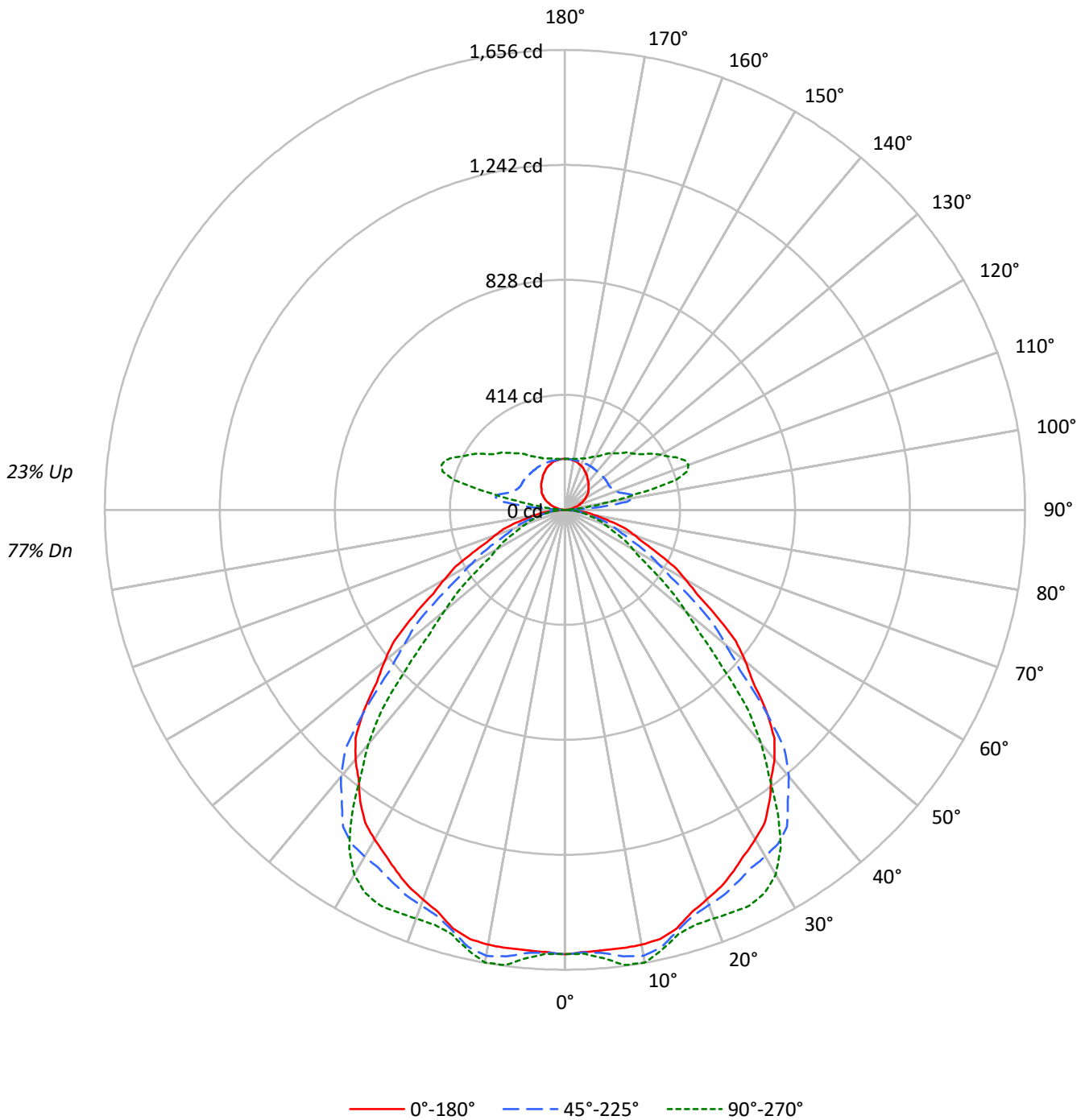
Lumens per Lamp: N/A
Luminaire Lumens: 4986.4 lumens
Efficiency: N/A
Efficacy: 146.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 34.1
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

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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	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	105	101	97	94	100	96	93	90	88	85	83	80	78	77	73	72	71	67
2	96	89	83	78	92	85	80	76	78	74	70	72	68	66	66	63	61	58
3	88	79	72	66	84	76	69	64	70	65	60	64	60	56	59	56	53	50
4	81	71	63	57	78	68	61	55	63	57	52	58	53	49	53	49	46	43
5	75	64	56	50	72	61	54	48	57	50	46	52	47	43	48	44	41	38
6	70	57	49	44	66	55	48	42	51	45	40	48	42	38	44	40	36	34
7	65	52	44	39	62	50	43	38	47	41	36	44	38	34	40	36	32	30
8	60	48	40	35	57	46	39	34	43	37	32	40	35	31	37	33	29	27
9	56	44	36	31	54	42	35	30	40	33	29	37	32	28	34	30	27	25
10	53	40	33	28	50	39	32	28	37	31	26	34	29	25	32	27	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25835	25835	25835
5°	25801	25960	26276
10°	26071	26742	27142
15°	26064	26200	26419
20°	25642	26036	26904
25°	25572	26297	28010
30°	25544	26880	28280
35°	25300	27457	26331
40°	24717	26435	23170
45°	23386	23201	18322
50°	21263	18969	14217
55°	18686	15612	11066
60°	16172	12484	9113
65°	13956	10346	7977
70°	12548	9163	7081
75°	11497	7935	6513
80°	10005	6369	6369
85°	7243	5743	3020

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25281 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	3.1
10°-20°	447.3	9.0
20°-30°	691.4	13.9
30°-40°	831.6	16.7
40°-50°	746.7	15.0
50°-60°	500.3	10.0
60°-70°	291.0	5.8
70°-80°	149.4	3.0
80°-90°	37.3	0.7
90°-100°	74.1	1.5
100°-110°	230.6	4.6
110°-120°	225.6	4.5
120°-130°	184.1	3.7
130°-140°	150.6	3.0
140°-150°	117.6	2.4
150°-160°	84.8	1.7
160°-170°	51.9	1.0
170°-180°	17.5	0.4
0°-30°	1293.2	25.9
0°-40°	2124.9	42.6
0°-60°	3371.8	67.6
0°-90°	3849.6	77.2
90°-120°	530.3	10.6
90°-150°	982.7	19.7
90°-180°	1137.0	22.8
0°-180°	4986.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1600	1600	1600	1600	1600	
5°	1592	1619	1602	1605	1621	152
15°	1559	1623	1567	1572	1580	438
25°	1435	1493	1476	1531	1572	662
35°	1284	1295	1393	1366	1336	800
45°	1024	1107	1016	857	802	784
55°	664	689	555	428	393	597
65°	365	373	271	220	209	370
75°	184	180	127	108	104	196
85°	39	31	31	21	16	48
90°	0	1	3	3	3	2
95°	10	30	136	50	33	12
105°	40	57	227	433	414	43
115°	72	85	184	380	445	71
125°	100	111	182	299	351	89
135°	120	133	181	258	290	93
145°	140	152	181	223	243	88
155°	161	166	182	200	207	74
165°	176	178	183	189	191	50
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1600.1	1600.1	1600.1	1600.1	1600.1
2.5°	1593.5	1612.6	1594.9	1596.2	1600.1
5°	1591.9	1619.0	1601.7	1605.3	1621.2
7.5°	1591.6	1630.2	1621.9	1631.9	1652.9
10°	1590.2	1636.5	1631.1	1633.2	1655.5
12.5°	1582.4	1636.4	1611.5	1609.5	1621.6
15°	1559.3	1623.0	1567.4	1572.5	1580.5
17.5°	1518.5	1585.2	1532.2	1550.2	1565.8
20°	1492.4	1557.8	1515.3	1538.7	1565.8
22.5°	1468.9	1534.3	1499.6	1532.4	1569.7
25°	1435.4	1492.7	1476.1	1530.9	1572.3
27.5°	1400.1	1433.9	1453.6	1527.0	1556.0
30°	1370.1	1392.4	1441.8	1505.7	1516.9
32.5°	1337.4	1350.9	1426.2	1459.4	1445.1
35°	1283.6	1294.8	1393.0	1366.2	1335.9
37.5°	1219.7	1242.7	1318.2	1241.1	1206.3
40°	1172.7	1211.0	1254.2	1139.2	1099.3
42.5°	1115.3	1176.5	1169.4	1022.9	974.0
45°	1024.2	1107.2	1016.1	856.7	802.4
47.5°	917.0	1002.1	853.1	710.6	660.0
50°	846.5	915.1	755.2	621.7	566.0
52.5°	774.7	824.2	671.7	538.4	487.6
55°	663.8	689.4	554.6	428.2	393.1
57.5°	562.0	578.3	453.0	345.9	320.0
60°	500.8	511.8	386.6	302.9	282.2
62.5°	444.6	453.3	333.1	266.5	250.9
65°	365.3	373.3	270.8	219.9	208.8
67.5°	302.4	306.5	222.8	182.7	172.2
70°	265.8	267.5	194.1	158.1	150.0
72.5°	233.3	231.0	166.7	137.3	131.8
75°	184.3	179.5	127.2	107.5	104.4
77.5°	137.7	132.5	89.4	82.9	82.9
80°	107.6	101.3	68.5	68.5	68.5
82.5°	80.3	71.3	52.8	52.8	51.6
85°	39.1	31.2	31.0	21.1	16.3
87.5°	10.4	10.6	4.6	4.6	4.6
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	43.0	14.1	11.4
95°	10.1	29.8	136.0	50.2	32.6
97.5°	18.4	38.9	225.2	140.2	88.3
100°	24.8	43.4	253.9	237.5	158.4
102.5°	31.0	48.8	248.6	339.3	266.4
105°	40.5	57.0	227.0	433.4	413.6
107.5°	49.9	65.2	206.3	440.6	462.3
110°	56.2	71.6	195.5	430.2	473.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.5	77.0	190.2	411.7	465.9
115°	71.9	85.1	184.3	380.2	445.0
117.5°	81.2	93.3	181.8	350.2	416.5
120°	86.5	98.6	180.9	333.0	396.7
122.5°	91.9	104.0	181.8	318.5	377.0
125°	100.1	111.0	182.0	298.9	350.6
127.5°	106.5	117.7	182.0	284.5	328.3
130°	110.1	122.2	182.0	276.2	315.8
132.5°	114.6	126.7	181.1	269.0	305.8
135°	120.3	133.4	180.9	258.1	289.9
137.5°	126.7	138.8	180.9	247.3	276.2
140°	130.4	142.5	180.9	239.9	266.4
142.5°	134.9	146.1	180.9	232.7	256.4
145°	140.4	151.5	180.9	223.0	242.7
147.5°	147.2	156.7	182.0	213.9	229.5
150°	151.7	159.4	182.0	209.3	221.4
152.5°	155.4	162.1	182.0	204.8	215.0
155°	160.7	166.2	182.0	200.2	206.8
157.5°	166.1	170.3	182.0	196.1	200.2
160°	169.7	173.0	182.0	193.3	196.6
162.5°	172.4	174.8	182.0	191.5	194.0
165°	176.4	177.5	183.2	188.8	191.1
167.5°	178.9	179.1	182.0	187.2	188.4
170°	179.8	180.9	182.0	185.4	186.6
172.5°	181.6	181.8	182.9	184.5	184.7
175°	183.2	183.2	183.2	184.3	183.2
177.5°	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2

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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	20.33	21.43	21.02	22.13	22.96	17.05	18.15	17.74	18.86	19.68
	3H	21.58	22.56	22.29	23.27	24.13	18.14	19.12	18.84	19.83	20.69
	4H	22.04	22.97	22.77	23.69	24.56	18.55	19.47	19.27	20.19	21.07
	6H	22.37	23.22	23.11	23.96	24.84	18.89	19.74	19.63	20.48	21.36
	8H	22.46	23.27	23.21	24.02	24.91	18.98	19.79	19.73	20.54	21.43
	12H	22.50	23.27	23.25	24.01	24.93	19.00	19.77	19.75	20.52	21.43
4H	2H	20.44	21.36	21.16	22.08	22.95	17.65	18.57	18.38	19.30	20.17
	3H	21.93	22.69	22.67	23.45	24.34	18.94	19.70	19.68	20.46	21.35
	4H	22.53	23.22	23.29	23.99	24.90	19.46	20.15	20.21	20.91	21.83
	6H	23.00	23.59	23.77	24.38	25.31	19.90	20.50	20.68	21.29	22.21
	8H	23.14	23.69	23.91	24.47	25.41	20.03	20.59	20.81	21.37	22.31
	12H	23.20	23.70	24.00	24.50	25.45	20.06	20.56	20.86	21.37	22.31
8H	4H	22.58	23.13	23.35	23.92	24.85	19.78	20.33	20.56	21.12	22.05
	6H	23.13	23.59	23.94	24.42	25.36	20.32	20.78	21.13	21.61	22.55
	8H	23.33	23.74	24.15	24.57	25.52	20.51	20.91	21.32	21.74	22.69
	12H	23.44	23.81	24.26	24.62	25.63	20.58	20.94	21.40	21.75	22.77
12H	4H	22.55	23.04	23.34	23.85	24.79	19.80	20.30	20.60	21.11	22.05
	6H	23.12	23.53	23.94	24.35	25.31	20.38	20.79	21.20	21.61	22.57
	8H	23.34	23.70	24.16	24.52	25.53	20.60	20.96	21.42	21.77	22.79