

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: P854003

Luminaire Tested: SQ2-PH1-025U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854003
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-025U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

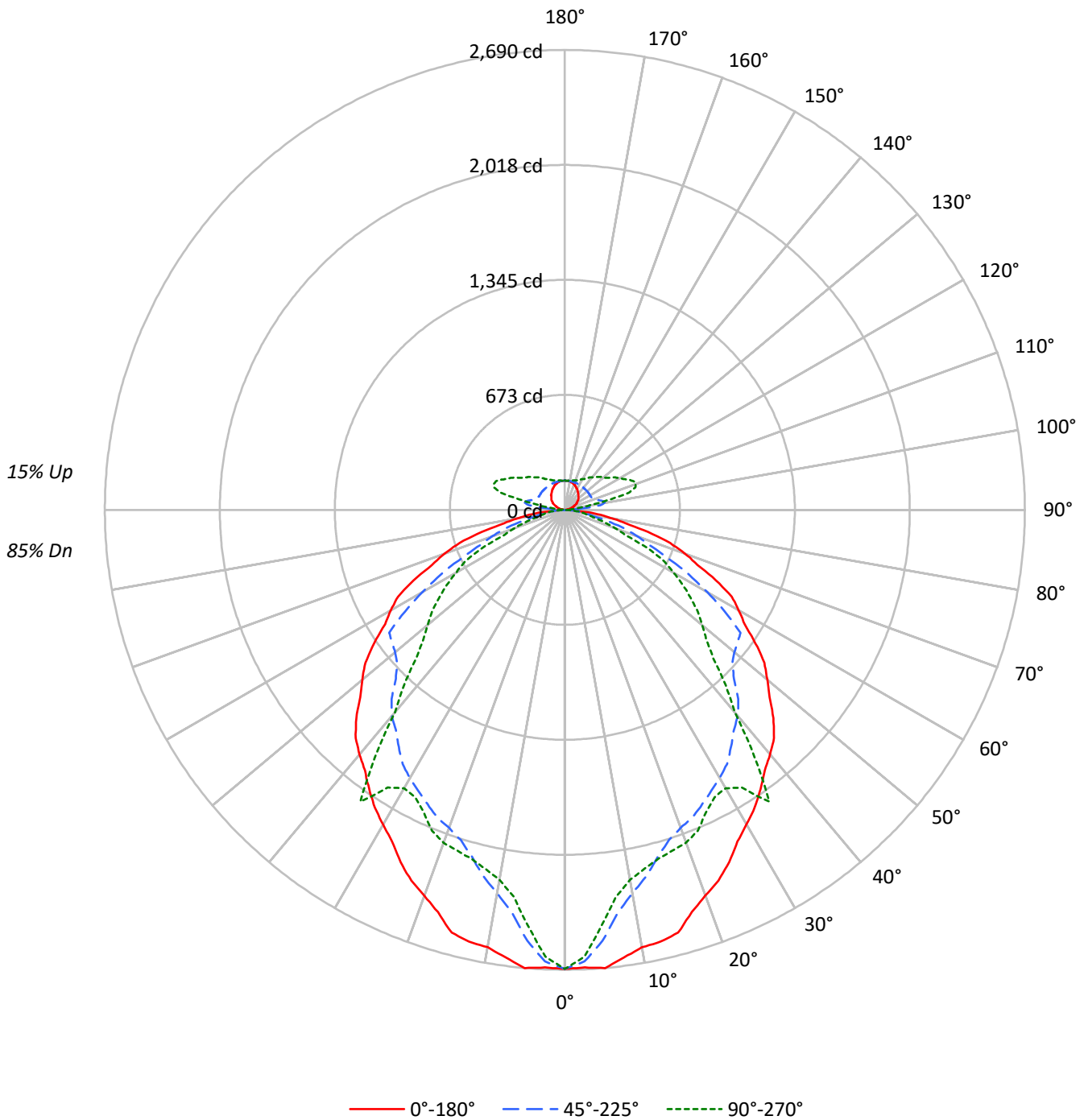
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7001.7 lumens
Efficiency: N/A
Efficacy: 123.7 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: Semi-Direct

Input Watts (W): 56.6
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

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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	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85				
1	106	102	98	94	102	98	94	91	91	88	86	84	82	80	79	77	75	72				
2	97	89	83	77	93	86	80	75	80	75	71	75	71	67	69	66	64	61				
3	88	79	71	65	85	76	69	63	71	65	60	66	61	57	62	58	55	52				
4	81	70	61	55	78	67	60	54	63	57	52	59	54	49	55	51	47	45				
5	75	62	54	48	72	60	53	47	57	50	45	53	47	43	50	45	41	39				
6	69	56	48	42	66	55	47	41	51	44	39	48	42	38	45	40	36	34				
7	64	51	43	37	61	50	42	36	47	40	35	44	38	34	41	36	32	30				
8	60	47	38	33	57	45	38	32	43	36	31	40	34	30	38	33	29	27				
9	56	43	35	30	53	42	34	29	39	33	28	37	31	27	35	30	26	24				
10	52	39	32	27	50	38	31	26	36	30	26	34	29	25	33	28	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43348	43348	43348
5°	43598	40989	39623
10°	42594	37316	36018
15°	42786	35101	35313
20°	41259	34017	35598
25°	40504	33859	34769
30°	39625	33767	35054
35°	39324	33384	41086
40°	39359	33167	32574
45°	39372	31905	28056
50°	38821	32533	26309
55°	38328	35308	25242
60°	37946	30935	23676
65°	37280	25081	20592
70°	35212	21347	14715
75°	31391	16095	11154
80°	25653	10451	10451
85°	16098	9466	7095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39372 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.2	3.4
10°-20°	621.4	8.9
20°-30°	911.2	13.0
30°-40°	1103.4	15.8
40°-50°	1085.1	15.5
50°-60°	944.6	13.5
60°-70°	656.7	9.4
70°-80°	311.3	4.4
80°-90°	69.0	1.0
90°-100°	69.3	1.0
100°-110°	215.5	3.1
110°-120°	210.9	3.0
120°-130°	172.1	2.5
130°-140°	140.8	2.0
140°-150°	109.9	1.6
150°-160°	79.3	1.1
160°-170°	48.5	0.7
170°-180°	16.3	0.2
0°-30°	1768.8	25.3
0°-40°	2872.3	41.0
0°-60°	4901.9	70.0
0°-90°	5939.0	84.8
90°-120°	495.7	7.1
90°-150°	918.5	13.1
90°-180°	1063.0	15.2
0°-180°	7001.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2685	2685	2685	2685	2685	
5°	2690	2688	2529	2450	2445	253
15°	2560	2280	2100	2085	2113	714
25°	2274	1934	1901	1959	1952	1046
35°	1995	1613	1694	1840	2084	1250
45°	1724	1277	1397	1446	1229	1325
55°	1362	994	1254	904	897	1216
65°	976	684	656	539	539	959
75°	503	348	258	184	179	533
85°	87	57	51	41	38	116
90°	0	1	3	3	3	3
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	355	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	208	227	82
155°	150	155	170	187	193	69
165°	165	166	171	176	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°	2684.8	2684.8	2684.8	2684.8	2684.8
2.5°	2678.7	2706.7	2644.0	2619.4	2615.4
5°	2690.0	2687.5	2529.0	2449.7	2444.7
7.5°	2640.9	2563.5	2374.2	2286.8	2282.8
10°	2598.0	2480.6	2276.1	2196.9	2196.9
12.5°	2587.8	2402.4	2196.4	2137.9	2149.9
15°	2559.7	2279.9	2099.9	2085.1	2112.6
17.5°	2466.7	2165.5	2024.7	2058.2	2090.1
20°	2401.3	2104.1	1979.8	2041.8	2071.8
22.5°	2346.1	2044.9	1947.1	2014.9	2030.9
25°	2273.6	1933.9	1900.6	1959.2	1951.7
27.5°	2186.7	1832.0	1854.1	1890.0	1894.5
30°	2125.4	1770.7	1811.2	1847.7	1880.2
32.5°	2066.1	1699.5	1764.2	1850.7	1925.1
35°	1995.1	1613.0	1693.7	1839.7	2084.5
37.5°	1920.5	1510.9	1622.7	1745.5	1823.4
40°	1867.4	1437.8	1573.6	1725.4	1545.5
42.5°	1810.2	1380.5	1500.0	1696.0	1392.2
45°	1724.3	1277.2	1397.3	1446.1	1228.7
47.5°	1623.2	1197.0	1327.9	1205.9	1120.9
50°	1545.5	1143.4	1295.2	1102.3	1047.4
52.5°	1469.9	1087.7	1272.7	1016.9	979.9
55°	1361.6	994.4	1254.3	904.1	896.7
57.5°	1246.6	899.4	1109.2	806.0	819.0
60°	1175.1	837.9	958.0	748.1	733.2
62.5°	1099.5	778.3	816.9	674.6	659.6
65°	975.8	683.6	656.5	539.0	539.0
67.5°	839.9	585.2	531.9	441.1	381.1
70°	745.9	521.1	452.2	351.6	311.7
72.5°	645.8	453.0	370.4	288.1	242.2
75°	503.2	348.4	258.0	183.8	178.8
77.5°	363.8	250.9	173.7	136.4	136.9
80°	275.9	191.0	112.4	109.9	112.4
82.5°	194.1	131.2	83.8	87.4	87.9
85°	86.9	56.9	51.1	40.8	38.3
87.5°	18.4	16.6	10.8	10.8	10.8
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.5	27.9	127.1	46.9	30.5
97.5°	17.2	36.3	210.5	131.0	82.6
100°	23.1	40.6	237.4	222.1	148.1
102.5°	29.0	45.6	232.4	317.2	249.0
105°	37.8	53.2	212.2	405.1	386.6
107.5°	46.6	61.0	192.9	411.8	432.2
110°	52.5	66.9	182.8	402.2	442.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.4	72.0	177.7	384.8	435.5
115°	67.2	79.6	172.3	355.4	416.0
117.5°	75.8	87.1	170.0	327.3	389.3
120°	80.9	92.2	169.1	311.2	370.8
122.5°	85.9	97.2	170.0	297.7	352.3
125°	93.5	103.8	170.2	279.5	327.7
127.5°	99.6	110.1	170.2	265.9	306.9
130°	102.9	114.2	170.2	258.2	295.2
132.5°	107.1	118.4	169.3	251.4	285.9
135°	112.4	124.7	169.1	241.2	271.0
137.5°	118.5	129.8	169.1	231.1	258.2
140°	121.9	133.2	169.1	224.3	249.0
142.5°	126.1	136.5	169.1	217.5	239.7
145°	131.3	141.6	169.1	208.4	226.9
147.5°	137.6	146.4	170.2	199.9	214.5
150°	141.8	149.0	170.2	195.6	206.9
152.5°	145.2	151.5	170.2	191.4	201.1
155°	150.2	155.4	170.2	187.1	193.3
157.5°	155.3	159.2	170.2	183.3	187.2
160°	158.6	161.7	170.2	180.8	183.8
162.5°	161.1	163.4	170.2	179.1	181.3
165°	164.9	166.0	171.2	176.5	178.6
167.5°	167.2	167.4	170.2	175.0	176.1
170°	168.1	169.1	170.2	173.4	174.4
172.5°	169.8	170.0	171.0	172.5	172.7
175°	171.2	171.2	171.2	172.3	171.2
177.5°	171.2	171.2	171.2	171.2	171.2
180°	171.2	171.2	171.2	171.2	171.2

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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	23.19	24.47	23.78	25.07	25.73	21.87	23.14	22.45	23.74	24.41
	3H	25.25	26.40	25.85	27.00	27.71	22.93	24.08	23.53	24.68	25.39
	4H	26.00	27.08	26.62	27.70	28.42	23.16	24.24	23.79	24.86	25.58
	6H	26.51	27.50	27.14	28.13	28.87	23.33	24.33	23.97	24.96	25.69
	8H	26.64	27.59	27.29	28.24	28.98	23.37	24.32	24.02	24.97	25.71
	12H	26.70	27.61	27.35	28.25	29.02	23.38	24.29	24.04	24.94	25.70
4H	2H	23.62	24.70	24.24	25.32	26.04	22.56	23.64	23.18	24.26	24.98
	3H	25.76	26.66	26.40	27.32	28.06	23.77	24.67	24.41	25.33	26.07
	4H	26.59	27.41	27.25	28.07	28.84	24.07	24.88	24.72	25.55	26.32
	6H	27.20	27.91	27.88	28.60	29.38	24.30	25.00	24.98	25.69	26.48
	8H	27.38	28.04	28.06	28.73	29.52	24.37	25.02	25.05	25.71	26.50
	12H	27.47	28.06	28.17	28.77	29.57	24.39	24.98	25.09	25.70	26.49
8H	4H	26.64	27.30	27.33	27.99	28.78	24.32	24.97	25.00	25.66	26.46
	6H	27.31	27.86	28.03	28.59	29.39	24.61	25.15	25.32	25.88	26.68
	8H	27.54	28.03	28.27	28.76	29.57	24.71	25.20	25.44	25.93	26.74
	12H	27.68	28.10	28.40	28.83	29.70	24.77	25.20	25.50	25.92	26.80
12H	4H	26.62	27.21	27.32	27.92	28.72	24.33	24.92	25.03	25.64	26.43
	6H	27.29	27.78	28.02	28.51	29.32	24.64	25.12	25.36	25.86	26.67
	8H	27.54	27.97	28.27	28.69	29.57	24.77	25.20	25.50	25.92	26.80