

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  
(formerly Eaton)

Brand: CORELITE

Report Number: P520371

Luminaire Tested: **SQ4-F-150U-050D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520371  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, G3-1910-536-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-150U-050D-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

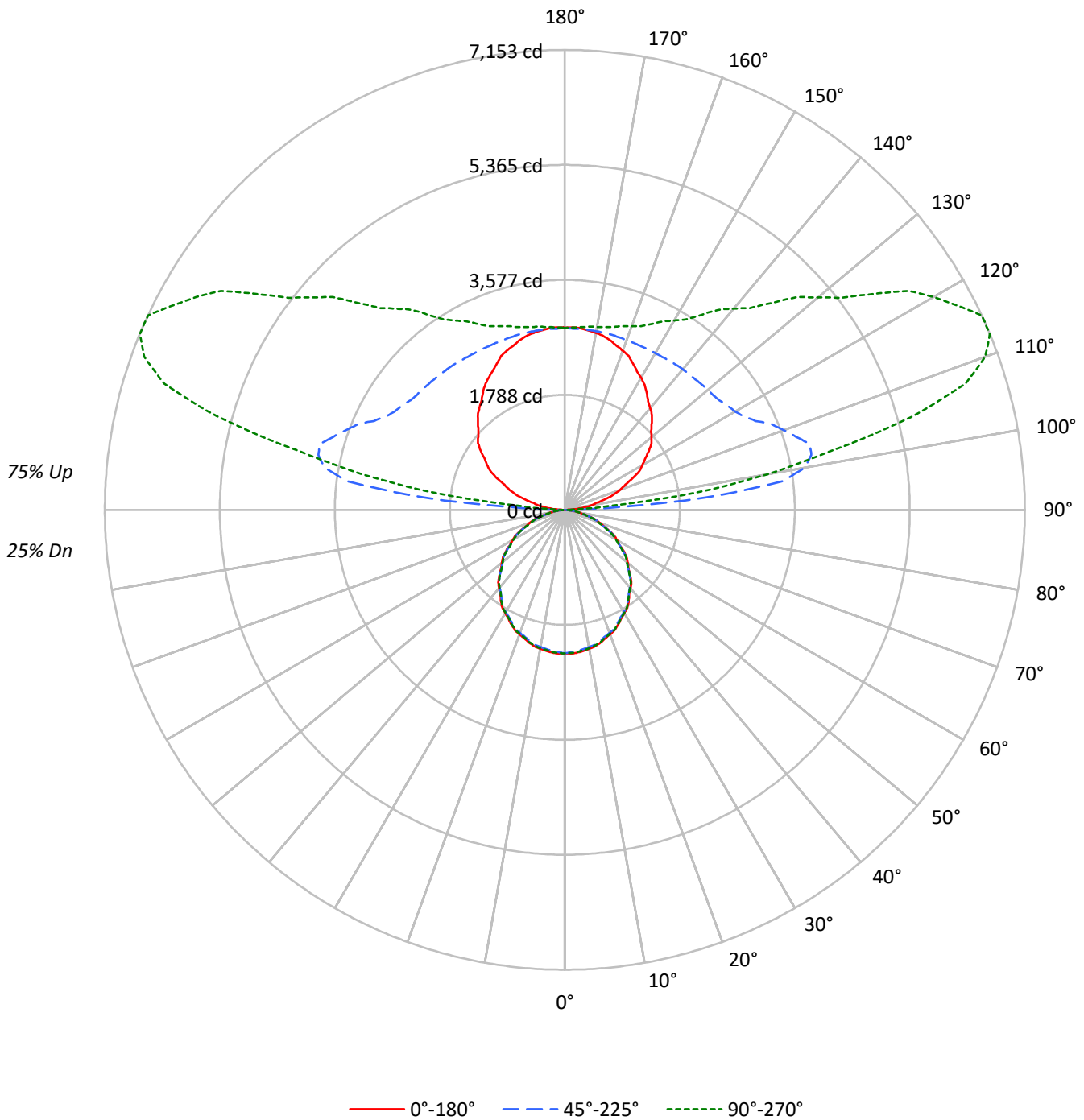
Lumens per Lamp: N/A  
Luminaire Lumens: 24351.4 lumens  
Efficiency: N/A  
Efficacy: 138.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 175.9  
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	101	101	101	101	90	90	90	90	69	69	69	51	51	51	33	33	33	25
1	92	88	84	81	82	79	75	73	61	59	57	44	43	42	29	29	28	21
2	84	77	71	66	74	69	64	59	53	50	47	39	37	35	26	25	23	18
3	76	67	60	55	68	60	54	49	47	43	39	34	32	29	23	21	20	15
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	20	18	17	13
5	64	53	45	39	57	47	41	36	37	32	29	27	24	22	18	16	15	11
6	59	47	39	34	52	42	36	31	33	28	25	24	21	19	16	14	13	10
7	54	42	35	29	48	38	31	27	30	25	22	22	19	16	15	13	11	8
8	50	38	31	26	44	34	28	23	27	22	19	20	17	15	14	12	10	8
9	47	35	28	23	41	31	25	21	25	20	17	18	15	13	13	11	9	7
10	43	32	25	20	39	29	23	18	23	18	15	17	14	12	12	10	8	6

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

	0°	45°	90°
0°	6864	6864	6864
5°	6881	6798	6853
10°	6858	6774	6821
15°	6811	6726	6783
20°	6747	6669	6718
25°	6672	6590	6651
30°	6579	6526	6568
35°	6506	6428	6462
40°	6382	6321	6334
45°	6251	6199	6199
50°	6118	6061	6033
55°	5976	5896	5863
60°	5752	5661	5624
65°	5480	5371	5306
70°	5105	4997	4890
75°	4579	4438	4331
80°	3703	3652	3546
85°	2212	2530	2636



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.6	0.9
10°-20°	599.7	2.5
20°-30°	900.7	3.7
30°-40°	1075.2	4.4
40°-50°	1101.8	4.5
50°-60°	982.6	4.0
60°-70°	731.8	3.0
70°-80°	397.3	1.6
80°-90°	97.9	0.4
90°-100°	1315.8	5.4
100°-110°	3557.5	14.6
110°-120°	3740.2	15.4
120°-130°	3038.1	12.5
130°-140°	2383.1	9.8
140°-150°	1829.1	7.5
150°-160°	1315.4	5.4
160°-170°	803.6	3.3
170°-180°	270.9	1.1
0°-30°	1711.0	7.0
0°-40°	2786.3	11.4
0°-60°	4870.7	20.0
0°-90°	6097.6	25.0
90°-120°	8613.5	35.4
90°-150°	15863.8	65.1
90°-180°	18254.0	75.0
0°-180°	24351.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2232	2232	2232	2232	2232	
5°	2229	2226	2202	2223	2220	212
15°	2139	2134	2112	2130	2130	603
25°	1966	1960	1942	1954	1960	905
35°	1733	1727	1712	1712	1721	1081
45°	1437	1440	1425	1422	1425	1109
55°	1114	1114	1100	1091	1094	993
65°	753	750	738	729	729	746
75°	385	382	374	367	364	407
85°	63	69	72	75	75	88
90°	6	18	40	43	40	15
95°	204	717	2188	1132	674	214
105°	661	1022	3947	5822	5583	697
115°	1164	1423	3273	6336	7153	1150
125°	1594	1826	2950	4978	5848	1421
135°	1911	2137	2871	4020	4550	1477
145°	2222	2388	2831	3441	3703	1390
155°	2508	2606	2807	3086	3188	1157
165°	2731	2757	2819	2929	2944	769
175°	2834	2831	2822	2858	2852	269
180°	2831	2831	2831	2831	2831	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2231.9	2231.9	2231.9	2231.9	2231.9
2.5°	2239.1	2234.5	2215.3	2231.9	2229.6
5°	2229.0	2226.1	2202.1	2223.0	2220.0
7.5°	2212.9	2207.0	2183.6	2203.8	2200.9
10°	2196.1	2190.3	2169.2	2187.1	2184.2
12.5°	2174.6	2171.1	2147.7	2165.7	2165.1
15°	2139.3	2133.5	2112.4	2130.4	2130.4
17.5°	2092.7	2089.3	2068.8	2086.1	2083.8
20°	2061.6	2055.8	2037.8	2052.7	2052.7
22.5°	2023.4	2019.9	2001.9	2014.5	2016.9
25°	1966.1	1960.2	1942.1	1954.3	1960.1
27.5°	1902.7	1898.1	1883.0	1890.9	1894.9
30°	1852.5	1852.5	1837.6	1840.8	1849.5
32.5°	1807.1	1807.1	1789.8	1792.8	1797.0
35°	1733.0	1727.2	1712.1	1712.3	1721.1
37.5°	1646.9	1644.1	1634.4	1632.6	1635.0
40°	1589.6	1586.7	1574.6	1577.6	1577.6
42.5°	1532.2	1529.3	1517.2	1513.2	1517.8
45°	1437.2	1440.1	1425.2	1422.3	1425.2
47.5°	1343.4	1343.4	1331.4	1323.2	1327.8
50°	1278.8	1278.8	1266.9	1260.9	1260.9
52.5°	1211.9	1214.2	1199.9	1191.6	1194.0
55°	1114.5	1114.5	1099.6	1090.7	1093.5
57.5°	1007.0	1007.0	992.0	983.2	988.4
60°	935.2	935.2	920.3	911.4	914.3
62.5°	863.5	863.5	848.6	839.6	840.2
65°	753.0	750.0	738.1	729.1	729.1
67.5°	646.6	639.0	629.9	617.9	617.9
70°	567.7	564.8	555.7	543.8	543.8
72.5°	496.0	490.8	481.7	472.1	472.1
75°	385.4	382.5	373.5	367.4	364.5
77.5°	276.1	273.7	273.1	264.8	267.1
80°	209.1	209.1	206.2	200.2	200.2
82.5°	149.4	151.8	146.4	145.1	142.8
85°	62.7	68.6	71.7	74.7	74.7
87.5°	13.1	22.5	24.5	27.5	26.9
90°	6.1	18.0	39.6	42.6	39.6
92.5°	86.5	315.4	622.3	270.1	195.7
95°	204.2	716.8	2188.1	1132.4	673.5
97.5°	328.0	822.0	3410.8	2822.7	2072.9
100°	420.6	864.5	3791.2	3953.7	3196.9
102.5°	505.9	923.7	3925.3	4811.4	4245.3
105°	661.3	1021.9	3946.6	5821.5	5583.1
107.5°	805.2	1134.1	3774.1	6451.7	6531.0
110°	917.4	1215.3	3620.5	6620.9	6957.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1017.3	1296.2	3479.1	6587.1	7152.7
115°	1164.1	1423.4	3273.1	6336.2	7152.7
117.5°	1308.0	1551.1	3137.2	5952.8	6878.3
120°	1395.8	1634.1	3056.7	5677.8	6622.3
122.5°	1478.7	1712.3	3007.9	5382.9	6334.7
125°	1593.9	1826.3	2950.1	4978.1	5848.3
127.5°	1699.9	1928.2	2916.0	4647.9	5413.1
130°	1758.5	1993.9	2901.3	4443.8	5135.2
132.5°	1819.4	2052.4	2886.7	4259.7	4896.2
135°	1910.9	2137.3	2870.8	4019.6	4550.0
137.5°	2002.8	2216.8	2857.4	3824.8	4256.8
140°	2066.3	2265.9	2852.5	3699.3	4083.7
142.5°	2127.2	2315.0	2842.8	3586.1	3922.8
145°	2221.7	2388.5	2831.1	3440.6	3702.8
147.5°	2307.6	2455.4	2817.8	3308.8	3510.2
150°	2371.0	2502.1	2812.9	3237.2	3398.0
152.5°	2429.6	2543.9	2810.4	3170.7	3303.0
155°	2508.1	2606.5	2806.8	3086.5	3187.8
157.5°	2589.8	2658.3	2807.4	3027.7	3094.5
160°	2636.2	2692.7	2809.8	2990.7	3038.4
162.5°	2672.7	2719.8	2812.3	2961.2	2996.9
165°	2730.6	2757.4	2819.0	2929.0	2943.9
167.5°	2770.3	2788.7	2819.6	2901.5	2908.6
170°	2794.6	2803.6	2822.1	2889.1	2889.1
172.5°	2814.1	2816.0	2822.1	2874.4	2872.0
175°	2834.3	2831.2	2822.1	2858.5	2852.5
177.5°	2840.9	2833.8	2821.4	2845.6	2838.5
180°	2831.1	2831.1	2831.1	2831.1	2831.1

(END OF REPORT)