

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P474699

Luminaire Tested: **24CZ2-125VHE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474699  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-125VHE-SQR-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12045.2 lumens  
Efficiency: N/A  
Efficacy: 137.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

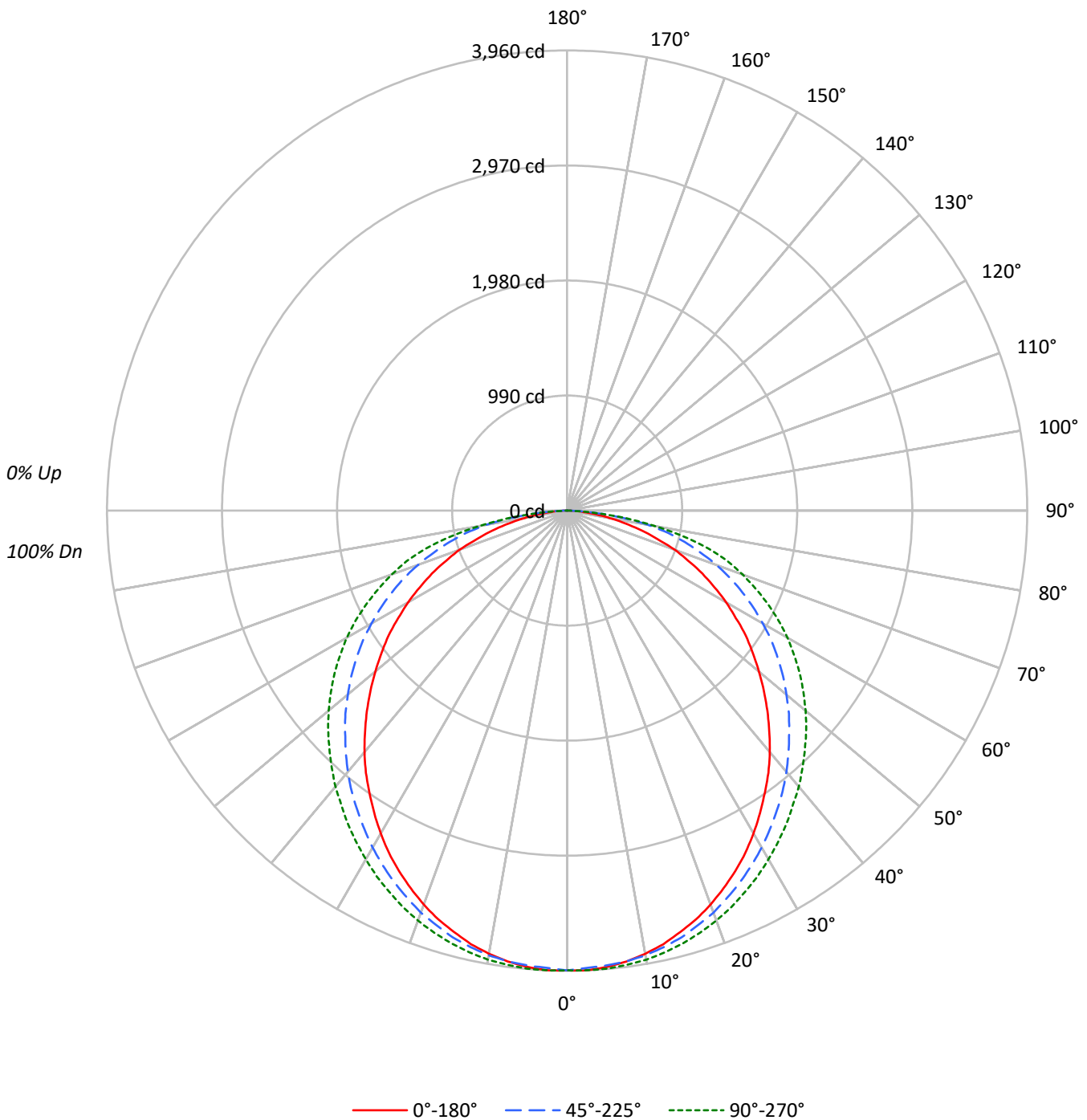
Input Watts (W): 87.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	10647	10647	10647
5°	10646	10615	10688
10°	10580	10617	10721
15°	10465	10593	10738
20°	10332	10542	10751
25°	10165	10467	10753
30°	9968	10404	10769
35°	9742	10342	10810
40°	9531	10309	10897
45°	9271	10282	11014
50°	9023	10312	11214
55°	8812	10382	11466
60°	8513	10460	11786
65°	8173	10586	12143
70°	7752	10735	12627
75°	6942	10884	13045
80°	5845	10914	11840
85°	4338	8259	7784



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	374.9	3.1
10°-20°	1074.5	8.9
20°-30°	1626.6	13.5
30°-40°	1967.8	16.3
40°-50°	2077.1	17.2
50°-60°	1958.7	16.3
60°-70°	1614.8	13.4
70°-80°	1059.4	8.8
80°-90°	291.3	2.4
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°	3076.1	25.5
0°-40°	5043.9	41.9
0°-60°	9079.7	75.4
0°-90°	12045.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12045.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3956	3956	3956	3956	3956	
5°	3941	3941	3930	3956	3956	374
15°	3756	3778	3802	3847	3854	1060
25°	3423	3466	3525	3598	3622	1577
35°	2965	3042	3148	3256	3291	1856
45°	2436	2546	2702	2846	2894	1880
55°	1878	2011	2213	2378	2444	1673
65°	1284	1438	1663	1840	1907	1267
75°	668	839	1047	1212	1255	706
85°	140	242	268	260	252	174
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3956.5	3956.5	3956.5	3956.5	3956.5
2.5°	3960.3	3956.5	3939.1	3962.2	3960.3
5°	3941.1	3941.1	3929.5	3956.5	3956.5
7.5°	3914.1	3916.0	3912.2	3943.0	3943.0
10°	3871.8	3879.5	3885.3	3919.9	3923.7
12.5°	3821.8	3835.2	3846.8	3889.1	3893.0
15°	3756.3	3777.5	3802.5	3846.8	3854.5
17.5°	3689.0	3714.0	3740.9	3798.7	3808.3
20°	3608.1	3637.0	3681.3	3739.0	3754.4
22.5°	3517.7	3558.1	3604.3	3673.6	3692.8
25°	3423.4	3465.7	3525.4	3598.5	3621.6
27.5°	3321.4	3371.5	3438.8	3523.5	3548.5
30°	3207.9	3265.6	3348.4	3438.8	3465.7
32.5°	3088.6	3155.9	3248.3	3348.4	3379.2
35°	2965.4	3042.4	3148.2	3256.0	3290.6
37.5°	2844.2	2921.2	3046.2	3159.8	3192.5
40°	2713.3	2798.0	2934.6	3055.9	3102.0
42.5°	2574.8	2674.8	2819.2	2953.9	2998.1
45°	2436.2	2545.9	2701.8	2846.1	2894.2
47.5°	2295.7	2417.0	2588.2	2734.5	2790.3
50°	2155.3	2284.2	2463.2	2621.0	2678.7
52.5°	2012.9	2147.6	2341.9	2509.3	2561.3
55°	1878.2	2010.9	2213.0	2378.5	2443.9
57.5°	1722.3	1872.4	2086.0	2253.4	2316.9
60°	1581.8	1728.1	1943.6	2120.6	2189.9
62.5°	1429.8	1579.9	1807.0	1984.0	2051.4
65°	1283.5	1437.5	1662.6	1839.7	1907.0
67.5°	1125.7	1287.4	1518.3	1689.6	1755.0
70°	985.3	1137.3	1364.4	1539.5	1604.9
72.5°	814.0	987.2	1204.6	1377.8	1449.0
75°	667.7	839.0	1046.8	1212.3	1254.7
77.5°	513.8	685.1	891.0	998.7	1027.6
80°	377.2	538.8	704.3	762.0	764.0
82.5°	254.0	396.4	490.7	519.6	515.7
85°	140.5	242.5	267.5	259.8	252.1
87.5°	57.7	80.8	65.4	46.2	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)