

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: P474099

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474099  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-125VHE-S-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12932.1 lumens  
Efficiency: N/A  
Efficacy: 147.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

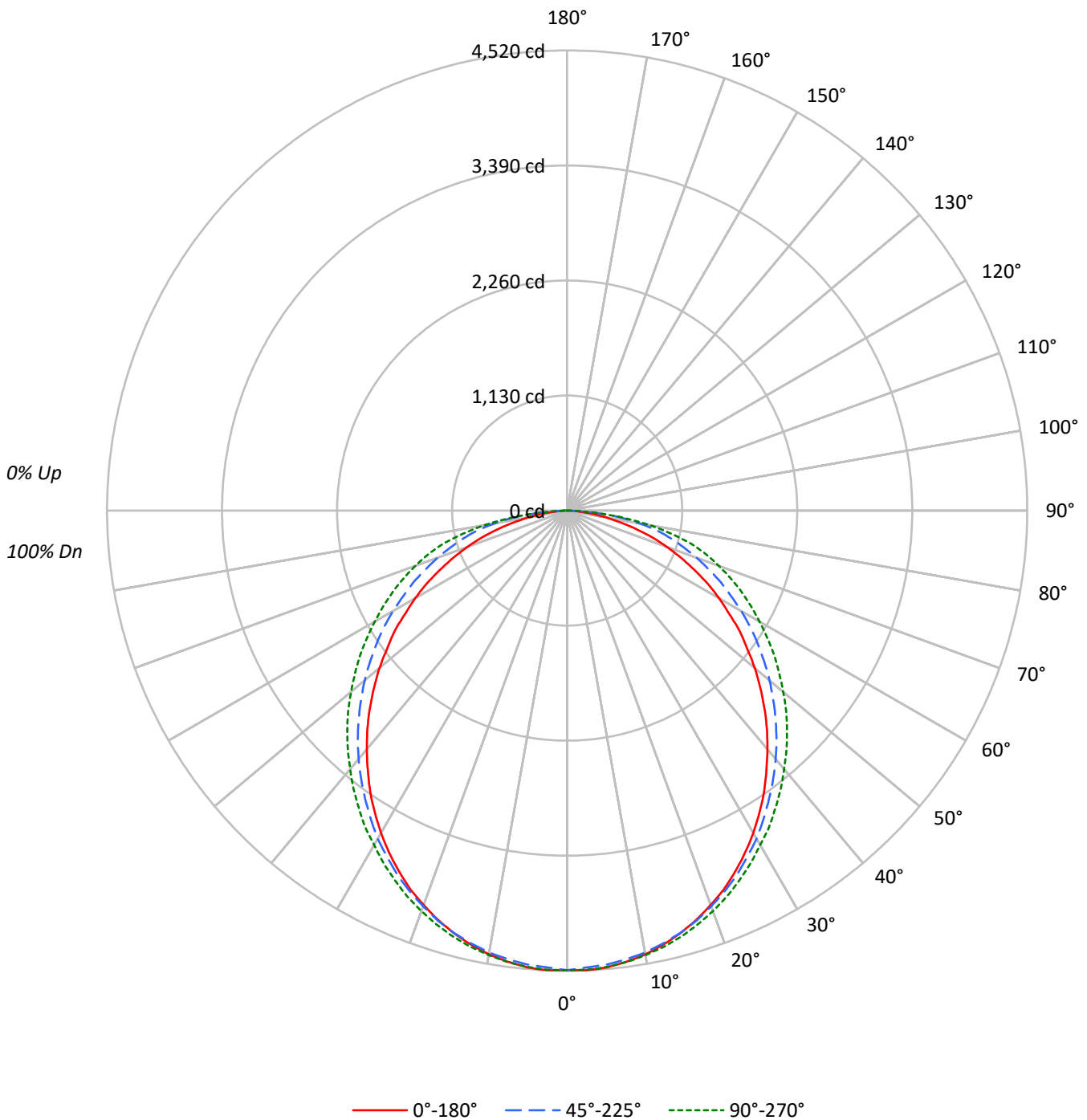
Input Watts (W): 87.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	6073	6073	6073
5°	6082	6045	6076
10°	6048	6022	6057
15°	5986	5983	6033
20°	5903	5922	5995
25°	5806	5856	5948
30°	5683	5782	5891
35°	5541	5680	5858
40°	5376	5596	5824
45°	5214	5509	5812
50°	5038	5433	5798
55°	4858	5366	5830
60°	4636	5316	5870
65°	4389	5295	6012
70°	4094	5323	6225
75°	3644	5477	6560
80°	2979	5596	6402
85°	2098	4886	4985



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	426.7	3.3
10°-20°	1215.4	9.4
20°-30°	1821.9	14.1
30°-40°	2169.9	16.8
40°-50°	2237.4	17.3
50°-60°	2041.6	15.8
60°-70°	1632.6	12.6
70°-80°	1066.4	8.2
80°-90°	320.2	2.5
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°	3464.1	26.8
0°-40°	5634.0	43.6
0°-60°	9913.0	76.7
0°-90°	12932.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12932.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4514	4514	4514	4514	4514	
5°	4503	4495	4476	4503	4499	427
15°	4297	4299	4295	4331	4331	1211
25°	3911	3917	3945	4002	4006	1800
35°	3373	3397	3458	3545	3566	2107
45°	2740	2789	2895	3016	3055	2113
55°	2071	2130	2288	2439	2485	1845
65°	1379	1472	1663	1827	1888	1367
75°	701	818	1054	1224	1262	745
85°	136	244	316	323	323	172
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4513.9	4513.9	4513.9	4513.9	4513.9
2.5°	4520.2	4513.9	4490.5	4518.1	4513.9
5°	4503.2	4494.8	4475.6	4503.2	4499.0
7.5°	4469.3	4465.0	4445.9	4477.8	4473.5
10°	4426.8	4422.5	4407.7	4439.5	4433.1
12.5°	4367.3	4365.2	4354.6	4392.8	4388.5
15°	4297.2	4299.3	4295.1	4331.2	4331.2
17.5°	4216.5	4214.4	4222.9	4267.5	4263.2
20°	4123.0	4125.1	4135.8	4186.7	4186.7
22.5°	4025.3	4023.2	4046.5	4097.5	4101.8
25°	3910.6	3917.0	3944.6	4001.9	4006.2
27.5°	3787.4	3798.0	3832.0	3897.9	3904.2
30°	3657.8	3670.6	3721.6	3783.2	3791.6
32.5°	3515.5	3543.1	3589.9	3668.4	3689.7
35°	3373.2	3396.6	3458.2	3545.2	3566.5
37.5°	3216.0	3254.2	3324.3	3419.9	3447.5
40°	3060.9	3099.2	3186.3	3286.1	3315.8
42.5°	2903.7	2944.1	3043.9	3156.5	3188.4
45°	2740.2	2789.0	2895.2	3016.3	3054.6
47.5°	2572.4	2629.7	2744.4	2876.1	2918.6
50°	2406.7	2464.0	2595.7	2731.7	2769.9
52.5°	2228.3	2300.5	2440.7	2587.2	2625.5
55°	2071.1	2130.5	2287.7	2438.6	2485.3
57.5°	1886.3	1967.0	2134.8	2287.7	2332.3
60°	1722.7	1797.1	1975.5	2130.5	2181.5
62.5°	1557.0	1633.5	1811.9	1988.2	2035.0
65°	1378.6	1472.1	1663.2	1826.8	1888.4
67.5°	1208.7	1306.4	1501.8	1676.0	1739.7
70°	1040.8	1140.7	1353.1	1531.5	1582.5
72.5°	875.2	979.2	1200.2	1374.3	1433.8
75°	701.0	817.8	1053.6	1223.5	1261.8
77.5°	537.4	667.0	904.9	1019.6	1047.2
80°	384.5	526.8	722.2	805.1	826.3
82.5°	252.8	390.8	539.5	584.1	577.8
85°	135.9	244.3	316.5	322.9	322.9
87.5°	53.1	97.7	99.8	76.5	72.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)