

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: P474449

Luminaire Tested: **24CZ2-125VHE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474449  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-125VHE-HRP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP  
INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10079.5 lumens  
Efficiency: N/A  
Efficacy: 114.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

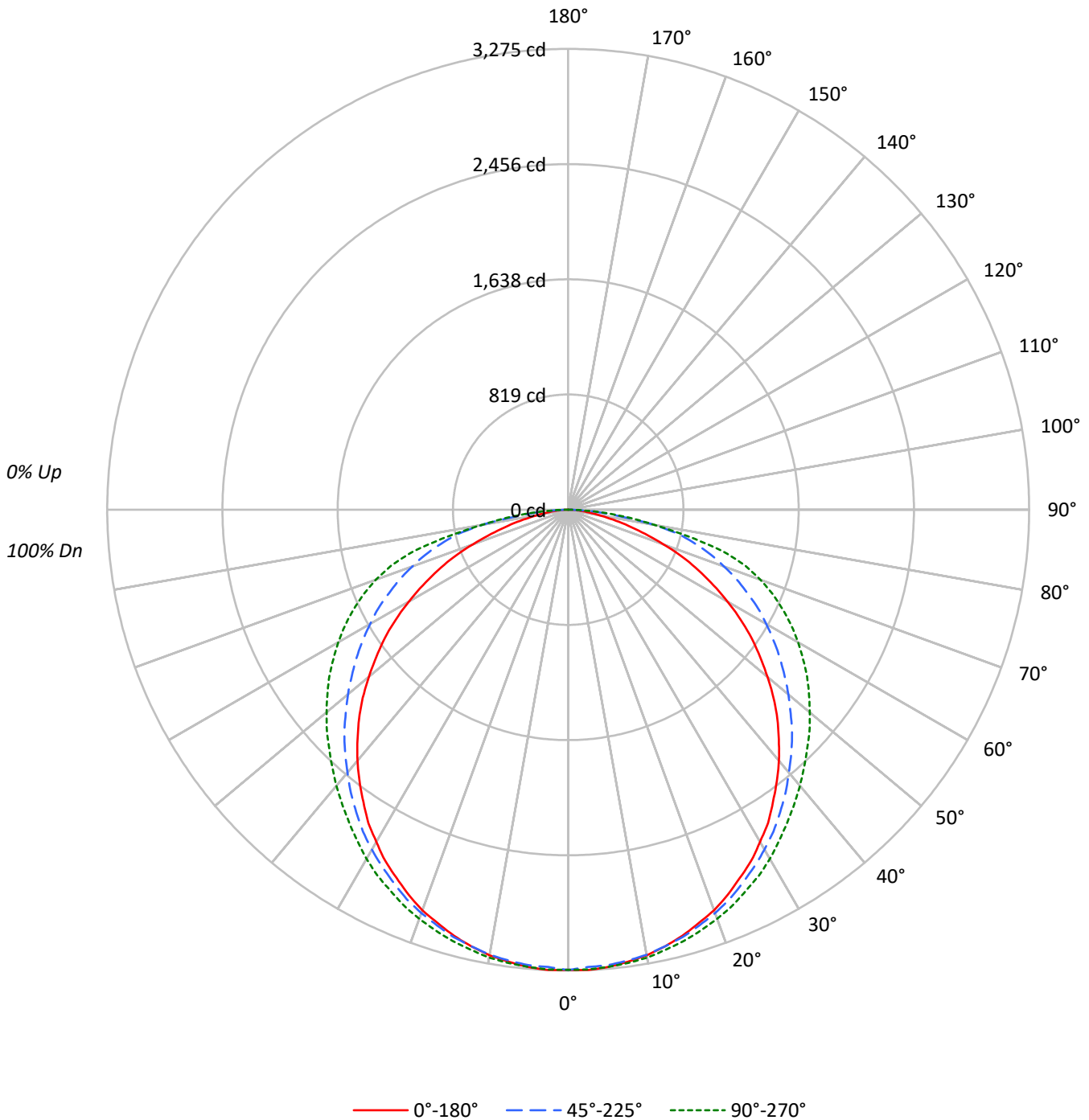
Input Watts (W): 87.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90		92	90	87		89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		60	54	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	38		50	43	38		49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	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	24		35	29	24	23

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

	0°	45°	90°
0°	4400	4400	4400
5°	4406	4388	4406
10°	4393	4388	4416
15°	4367	4379	4420
20°	4338	4368	4429
25°	4285	4348	4435
30°	4235	4333	4452
35°	4166	4311	4457
40°	4091	4284	4499
45°	3999	4279	4569
50°	3869	4275	4690
55°	3731	4305	4860
60°	3520	4371	5075
65°	3251	4474	5361
70°	2838	4631	5711
75°	2303	4870	5901
80°	1702	4775	4775
85°	1304	3517	3972



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	309.8	3.1
10°-20°	889.6	8.8
20°-30°	1354.3	13.4
30°-40°	1644.5	16.3
40°-50°	1737.4	17.2
50°-60°	1639.4	16.3
60°-70°	1363.1	13.5
70°-80°	896.8	8.9
80°-90°	244.5	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°	2553.8	25.3
0°-40°	4198.2	41.7
0°-60°	7575.1	75.2
0°-90°	10079.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10079.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3270	3270	3270	3270	3270	
5°	3262	3262	3249	3262	3262	310
15°	3135	3140	3144	3173	3173	884
25°	2886	2903	2929	2979	2988	1331
35°	2536	2566	2624	2692	2713	1588
45°	2101	2144	2249	2359	2401	1618
55°	1591	1658	1835	2009	2072	1417
65°	1021	1140	1405	1612	1684	1009
75°	443	646	937	1110	1135	477
85°	84	186	228	253	257	103
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3270.3	3270.3	3270.3	3270.3	3270.3
2.5°	3274.6	3270.3	3253.4	3270.3	3270.3
5°	3262.0	3262.0	3249.0	3262.0	3262.0
7.5°	3240.8	3240.8	3232.2	3249.0	3249.0
10°	3215.3	3215.3	3211.4	3232.2	3232.2
12.5°	3177.6	3181.5	3177.6	3202.7	3202.7
15°	3135.1	3139.5	3143.8	3173.3	3173.3
17.5°	3080.6	3088.8	3097.5	3130.8	3135.1
20°	3029.9	3033.8	3050.7	3088.8	3093.1
22.5°	2962.3	2974.9	2996.1	3033.8	3046.8
25°	2886.1	2903.0	2928.6	2979.2	2987.5
27.5°	2814.7	2827.2	2861.0	2916.0	2932.9
30°	2725.9	2747.1	2789.1	2844.1	2865.3
32.5°	2641.4	2662.6	2713.3	2772.2	2789.1
35°	2536.2	2565.6	2624.5	2692.1	2713.3
37.5°	2434.8	2464.3	2536.2	2612.0	2637.5
40°	2329.2	2362.9	2439.2	2527.5	2561.3
42.5°	2215.3	2261.6	2346.1	2443.1	2481.2
45°	2101.4	2143.8	2249.0	2358.6	2401.1
47.5°	1979.2	2029.9	2143.8	2274.6	2325.3
50°	1848.4	1911.7	2042.5	2185.8	2240.8
52.5°	1717.6	1789.1	1936.8	2097.0	2156.4
55°	1590.7	1658.3	1835.4	2008.7	2071.9
57.5°	1451.7	1536.2	1730.2	1915.6	1979.2
60°	1307.9	1401.0	1624.5	1818.5	1886.1
62.5°	1164.6	1270.3	1523.2	1717.6	1789.1
65°	1021.2	1139.5	1405.4	1612.0	1683.9
67.5°	881.8	1012.6	1295.4	1502.4	1573.9
70°	721.5	886.1	1177.1	1379.8	1451.7
72.5°	573.8	764.0	1063.2	1253.4	1316.6
75°	443.1	645.7	936.8	1109.6	1135.1
77.5°	324.8	527.5	806.0	864.9	869.2
80°	219.6	421.8	616.3	607.6	616.3
82.5°	143.4	316.6	388.0	434.8	438.7
85°	84.5	185.8	227.8	253.4	257.3
87.5°	42.0	63.2	80.1	84.5	92.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)