

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: P473999

Luminaire Tested: **24CZ2-125VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473999
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-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12246.7 lumens
Efficiency: N/A
Efficacy: 139.5 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

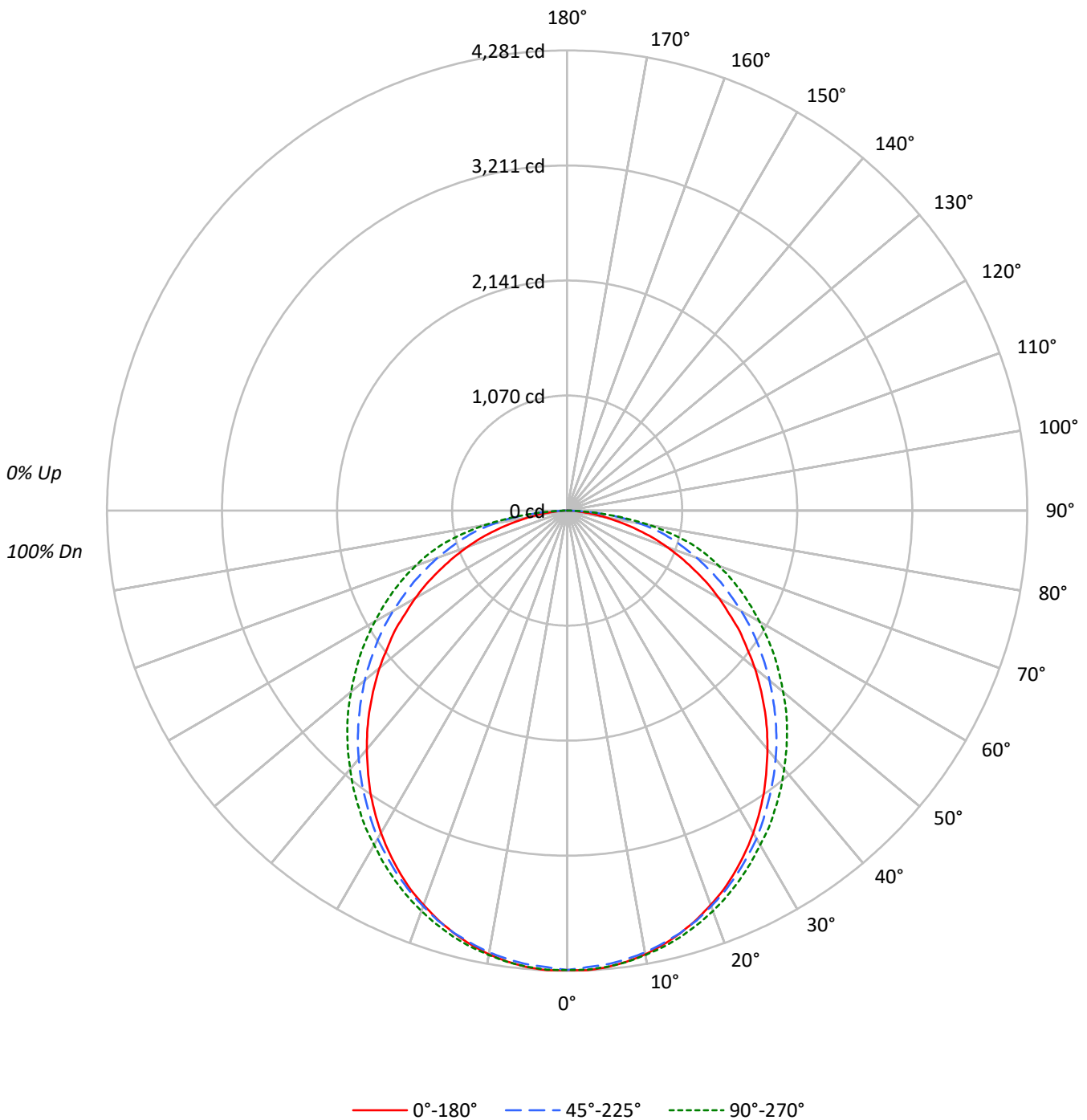
Input Watts (W): 87.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5752	5752	5752
5°	5760	5725	5754
10°	5728	5703	5736
15°	5669	5666	5713
20°	5591	5608	5677
25°	5498	5546	5632
30°	5382	5475	5579
35°	5247	5379	5548
40°	5091	5300	5515
45°	4938	5217	5504
50°	4771	5146	5491
55°	4601	5082	5521
60°	4390	5034	5559
65°	4156	5015	5693
70°	3878	5041	5895
75°	3451	5187	6212
80°	2821	5299	6063
85°	1987	4627	4721



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	404.1	3.3
10°-20°	1151.0	9.4
20°-30°	1725.3	14.1
30°-40°	2054.9	16.8
40°-50°	2118.8	17.3
50°-60°	1933.4	15.8
60°-70°	1546.0	12.6
70°-80°	1009.8	8.2
80°-90°	303.2	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°	3280.5	26.8
0°-40°	5335.4	43.6
0°-60°	9387.7	76.7
0°-90°	12246.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12246.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4275	4275	4275	4275	4275	
5°	4265	4257	4238	4265	4261	405
15°	4070	4072	4068	4102	4102	1147
25°	3703	3709	3736	3790	3794	1705
35°	3194	3217	3275	3357	3378	1996
45°	2595	2641	2742	2856	2893	2001
55°	1961	2018	2166	2309	2354	1747
65°	1306	1394	1575	1730	1788	1295
75°	664	774	998	1159	1195	705
85°	129	231	300	306	306	163
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4274.7	4274.7	4274.7	4274.7	4274.7
2.5°	4280.7	4274.7	4252.5	4278.7	4274.7
5°	4264.6	4256.6	4238.5	4264.6	4260.6
7.5°	4232.4	4228.4	4210.3	4240.5	4236.4
10°	4192.2	4188.2	4174.1	4204.3	4198.2
12.5°	4135.9	4133.9	4123.8	4160.0	4156.0
15°	4069.5	4071.5	4067.5	4101.7	4101.7
17.5°	3993.0	3991.0	3999.1	4041.3	4037.3
20°	3904.5	3906.5	3916.6	3964.9	3964.9
22.5°	3812.0	3810.0	3832.1	3880.4	3884.4
25°	3703.4	3709.4	3735.6	3789.9	3793.9
27.5°	3586.7	3596.8	3628.9	3691.3	3697.3
30°	3464.0	3476.1	3524.3	3582.7	3590.7
32.5°	3329.2	3355.4	3399.6	3474.0	3494.2
35°	3194.4	3216.6	3274.9	3357.4	3377.5
37.5°	3045.6	3081.8	3148.2	3238.7	3264.8
40°	2898.7	2934.9	3017.4	3112.0	3140.1
42.5°	2749.9	2788.1	2882.6	2989.2	3019.4
45°	2595.0	2641.2	2741.8	2856.5	2892.7
47.5°	2436.1	2490.4	2599.0	2723.7	2763.9
50°	2279.2	2333.5	2458.2	2586.9	2623.1
52.5°	2110.2	2178.6	2311.3	2450.1	2486.3
55°	1961.3	2017.6	2166.5	2309.3	2353.6
57.5°	1786.3	1862.7	2021.7	2166.5	2208.7
60°	1631.4	1701.8	1870.8	2017.6	2065.9
62.5°	1474.5	1546.9	1715.9	1882.9	1927.1
65°	1305.5	1394.0	1575.1	1730.0	1788.3
67.5°	1144.6	1237.1	1422.2	1587.2	1647.5
70°	985.7	1080.2	1281.4	1450.4	1498.6
72.5°	828.8	927.4	1136.6	1301.5	1357.8
75°	663.8	774.5	997.8	1158.7	1194.9
77.5°	508.9	631.6	856.9	965.6	991.7
80°	364.1	498.9	683.9	762.4	782.5
82.5°	239.4	370.1	510.9	553.2	547.2
85°	128.7	231.3	299.7	305.8	305.8
87.5°	50.3	92.5	94.5	72.4	68.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)