

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: P474051

Luminaire Tested: **24CZ2-135VHE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474051
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-135VHE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13851.7 lumens
Efficiency: N/A
Efficacy: 143.1 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

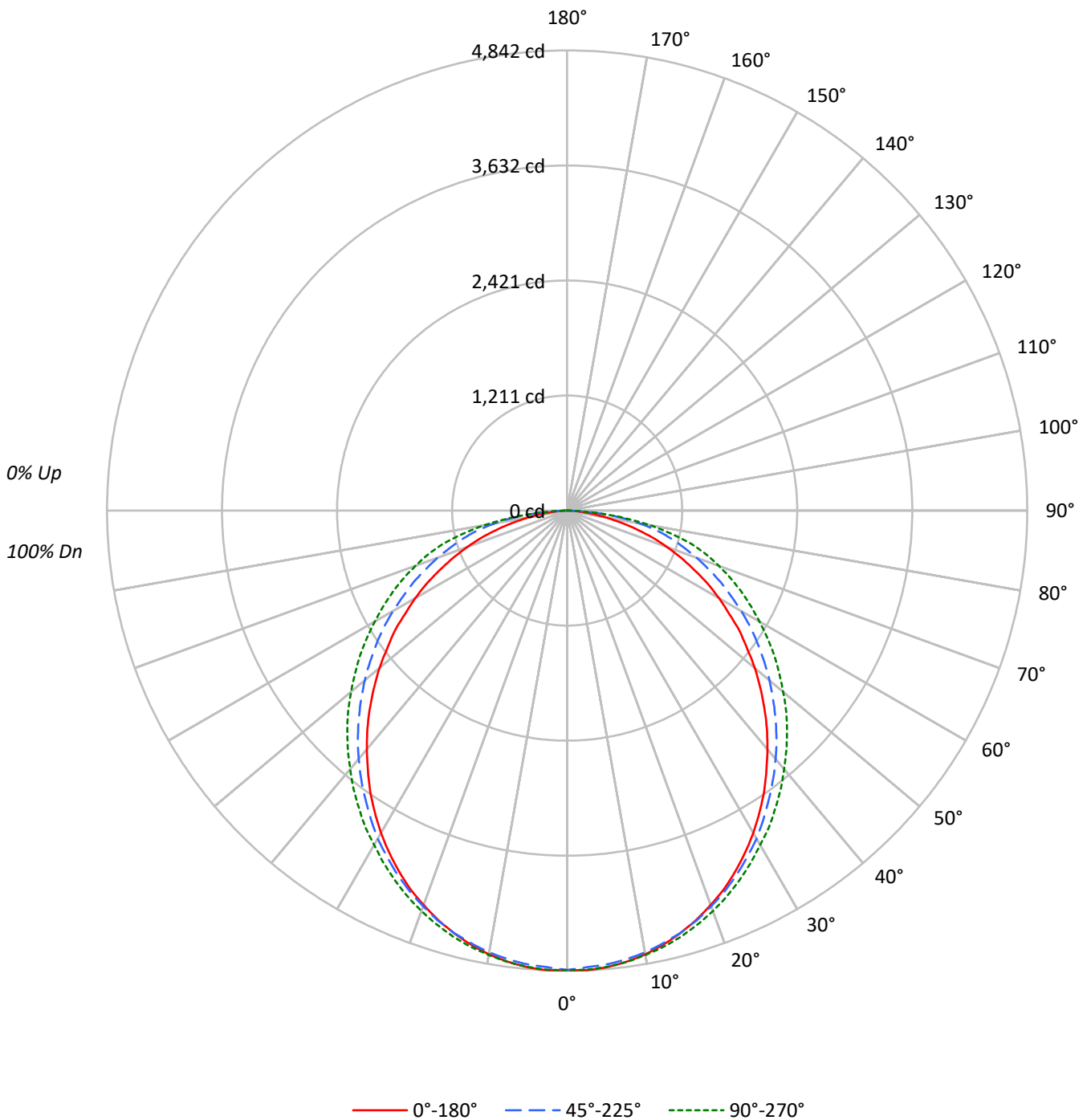
Input Watts (W): 96.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6505	6505	6505
5°	6515	6475	6509
10°	6478	6450	6487
15°	6411	6408	6462
20°	6323	6343	6421
25°	6218	6273	6370
30°	6087	6193	6310
35°	5935	6084	6275
40°	5759	5994	6238
45°	5585	5901	6226
50°	5396	5820	6210
55°	5204	5748	6244
60°	4965	5694	6288
65°	4701	5672	6440
70°	4386	5701	6668
75°	3903	5867	7026
80°	3191	5994	6858
85°	2248	5233	5338



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	457.1	3.3
10°-20°	1301.8	9.4
20°-30°	1951.5	14.1
30°-40°	2324.2	16.8
40°-50°	2396.5	17.3
50°-60°	2186.8	15.8
60°-70°	1748.7	12.6
70°-80°	1142.2	8.2
80°-90°	343.0	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°	3710.4	26.8
0°-40°	6034.6	43.6
0°-60°	10617.9	76.7
0°-90°	13851.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13851.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4835	4835	4835	4835	4835	
5°	4824	4814	4794	4824	4819	458
15°	4603	4605	4600	4639	4639	1298
25°	4189	4196	4225	4286	4291	1928
35°	3613	3638	3704	3797	3820	2257
45°	2935	2987	3101	3231	3272	2263
55°	2218	2282	2450	2612	2662	1976
65°	1477	1577	1782	1957	2023	1464
75°	751	876	1128	1310	1352	798
85°	146	262	339	346	346	185
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4834.9	4834.9	4834.9	4834.9	4834.9
2.5°	4841.7	4834.9	4809.8	4839.4	4834.9
5°	4823.5	4814.4	4793.9	4823.5	4818.9
7.5°	4787.1	4782.5	4762.1	4796.2	4791.6
10°	4741.6	4737.0	4721.1	4755.2	4748.4
12.5°	4677.9	4675.6	4664.2	4705.2	4700.6
15°	4602.8	4605.1	4600.5	4639.2	4639.2
17.5°	4516.3	4514.1	4523.2	4570.9	4566.4
20°	4416.2	4418.5	4429.9	4484.5	4484.5
22.5°	4311.6	4309.3	4334.3	4388.9	4393.5
25°	4188.7	4195.5	4225.1	4286.5	4291.1
27.5°	4056.7	4068.1	4104.5	4175.0	4181.9
30°	3917.9	3931.6	3986.2	4052.2	4061.3
32.5°	3765.5	3795.1	3845.1	3929.3	3952.1
35°	3613.1	3638.1	3704.1	3797.4	3820.1
37.5°	3444.7	3485.7	3560.7	3663.1	3692.7
40°	3278.6	3319.6	3412.8	3519.8	3551.6
42.5°	3110.2	3153.5	3260.4	3381.0	3415.1
45°	2935.0	2987.4	3101.1	3230.8	3271.8
47.5°	2755.3	2816.7	2939.6	3080.7	3126.2
50°	2577.8	2639.3	2780.3	2925.9	2966.9
52.5°	2386.7	2464.1	2614.2	2771.2	2812.2
55°	2218.3	2282.1	2450.4	2612.0	2662.0
57.5°	2020.4	2106.9	2286.6	2450.4	2498.2
60°	1845.2	1924.8	2116.0	2282.1	2336.7
62.5°	1667.7	1749.7	1940.8	2129.6	2179.7
65°	1476.6	1576.7	1781.5	1956.7	2022.7
67.5°	1294.6	1399.3	1608.6	1795.2	1863.4
70°	1114.9	1221.8	1449.3	1640.4	1695.0
72.5°	937.4	1048.9	1285.5	1472.1	1535.8
75°	750.8	876.0	1128.5	1310.5	1351.5
77.5°	575.6	714.4	969.2	1092.1	1121.7
80°	411.8	564.3	773.6	862.3	885.1
82.5°	270.8	418.6	577.9	625.7	618.9
85°	145.6	261.7	339.0	345.8	345.8
87.5°	56.9	104.7	106.9	81.9	77.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)