

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: P474052

Luminaire Tested: **24CZ2-140VHE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474052
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-140VHE-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: 14317.9 lumens
Efficiency: N/A
Efficacy: 142.5 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

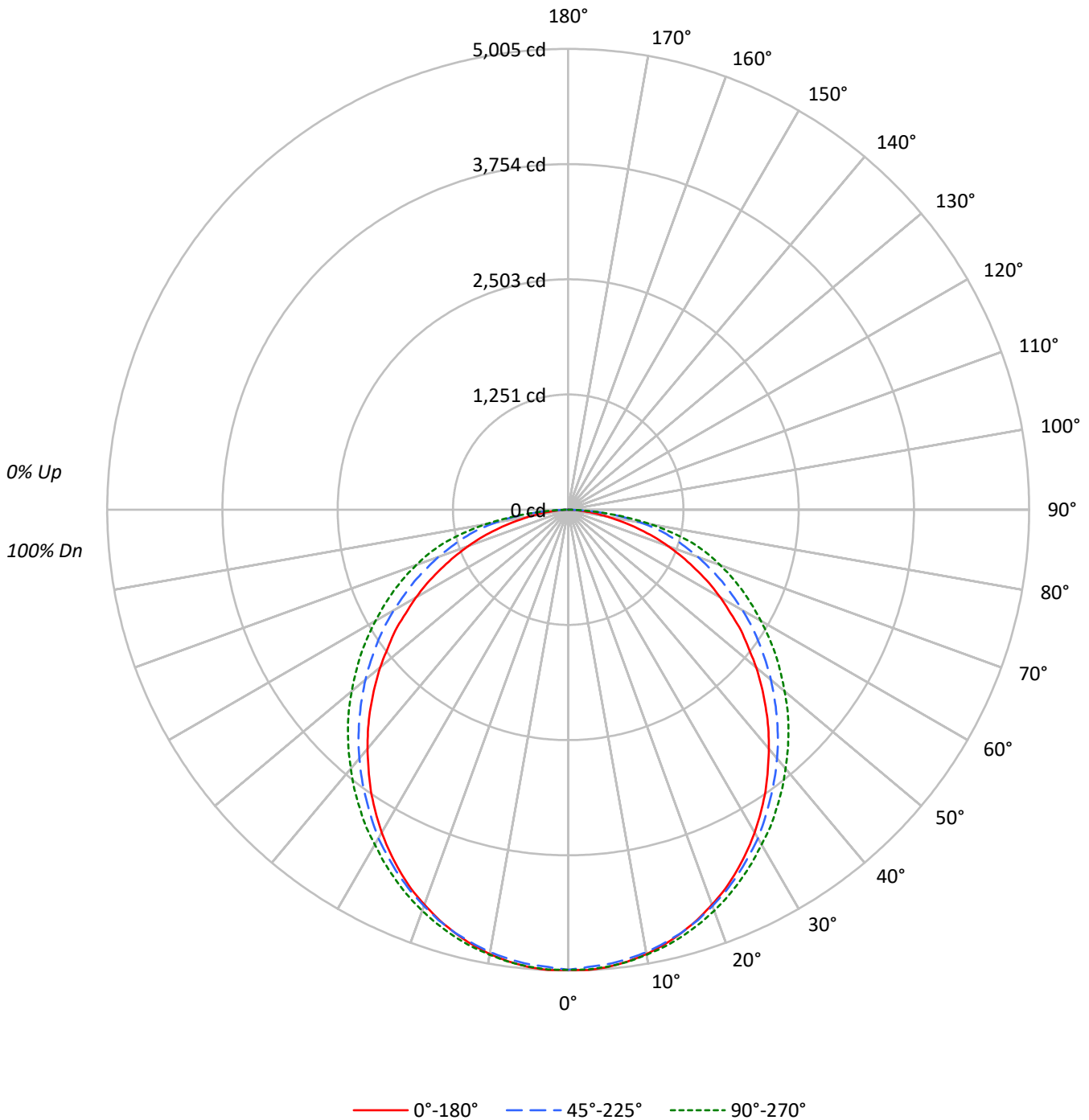
Input Watts (W): 100.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6724	6724	6724
5°	6734	6693	6728
10°	6696	6667	6706
15°	6627	6624	6680
20°	6536	6556	6637
25°	6428	6484	6585
30°	6292	6401	6522
35°	6134	6289	6486
40°	5952	6196	6448
45°	5773	6099	6435
50°	5578	6016	6419
55°	5379	5942	6455
60°	5133	5886	6500
65°	4859	5863	6656
70°	4533	5893	6893
75°	4035	6064	7262
80°	3298	6196	7088
85°	2323	5409	5519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	472.5	3.3
10°-20°	1345.7	9.4
20°-30°	2017.1	14.1
30°-40°	2402.4	16.8
40°-50°	2477.1	17.3
50°-60°	2260.4	15.8
60°-70°	1807.5	12.6
70°-80°	1180.6	8.2
80°-90°	354.5	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°	3835.3	26.8
0°-40°	6237.7	43.6
0°-60°	10975.2	76.7
0°-90°	14317.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14317.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4998	4998	4998	4998	4998	
5°	4986	4976	4955	4986	4981	473
15°	4758	4760	4755	4795	4795	1341
25°	4330	4337	4367	4431	4436	1993
35°	3735	3760	3829	3925	3949	2333
45°	3034	3088	3206	3340	3382	2340
55°	2293	2359	2533	2700	2752	2042
65°	1526	1630	1842	2022	2091	1513
75°	776	905	1166	1355	1397	825
85°	150	270	350	358	358	191
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4997.6	4997.6	4997.6	4997.6	4997.6
2.5°	5004.6	4997.6	4971.7	5002.3	4997.6
5°	4985.8	4976.4	4955.2	4985.8	4981.1
7.5°	4948.2	4943.5	4922.3	4957.6	4952.9
10°	4901.1	4896.4	4880.0	4915.3	4908.2
12.5°	4835.3	4832.9	4821.2	4863.5	4858.8
15°	4757.7	4760.0	4755.3	4795.3	4795.3
17.5°	4668.3	4666.0	4675.4	4724.8	4720.1
20°	4564.8	4567.2	4578.9	4635.4	4635.4
22.5°	4456.7	4454.3	4480.2	4536.6	4541.3
25°	4329.7	4336.7	4367.3	4430.8	4435.5
27.5°	4193.3	4205.0	4242.6	4315.5	4322.6
30°	4049.8	4063.9	4120.3	4188.6	4198.0
32.5°	3892.2	3922.8	3974.5	4061.6	4085.1
35°	3734.7	3760.5	3828.7	3925.1	3948.7
37.5°	3560.6	3603.0	3680.6	3786.4	3817.0
40°	3388.9	3431.3	3527.7	3638.2	3671.2
42.5°	3214.9	3259.6	3370.1	3494.8	3530.0
45°	3033.8	3087.9	3205.5	3339.6	3381.9
47.5°	2848.0	2911.5	3038.5	3184.3	3231.4
50°	2664.6	2728.1	2873.9	3024.4	3066.7
52.5°	2467.0	2547.0	2702.2	2864.5	2906.8
55°	2293.0	2358.9	2532.9	2699.9	2751.6
57.5°	2088.4	2177.8	2363.6	2532.9	2582.3
60°	1907.3	1989.6	2187.2	2358.9	2415.3
62.5°	1723.9	1808.5	2006.1	2201.3	2253.0
65°	1526.3	1629.8	1841.5	2022.5	2090.7
67.5°	1338.2	1446.4	1662.7	1855.6	1926.1
70°	1152.4	1262.9	1498.1	1695.6	1752.1
72.5°	968.9	1084.2	1328.8	1521.6	1587.5
75°	776.1	905.4	1166.5	1354.6	1397.0
77.5°	595.0	738.5	1001.9	1128.9	1159.4
80°	425.7	583.2	799.6	891.3	914.8
82.5°	279.9	432.7	597.4	646.7	639.7
85°	150.5	270.5	350.4	357.5	357.5
87.5°	58.8	108.2	110.5	84.7	80.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)