

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: P389565

Luminaire Tested: **24CZ2-120VHE-S-UNV-L930-CD2-SDWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P389565
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-120VHE-S-UNV-L930-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10328.7 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

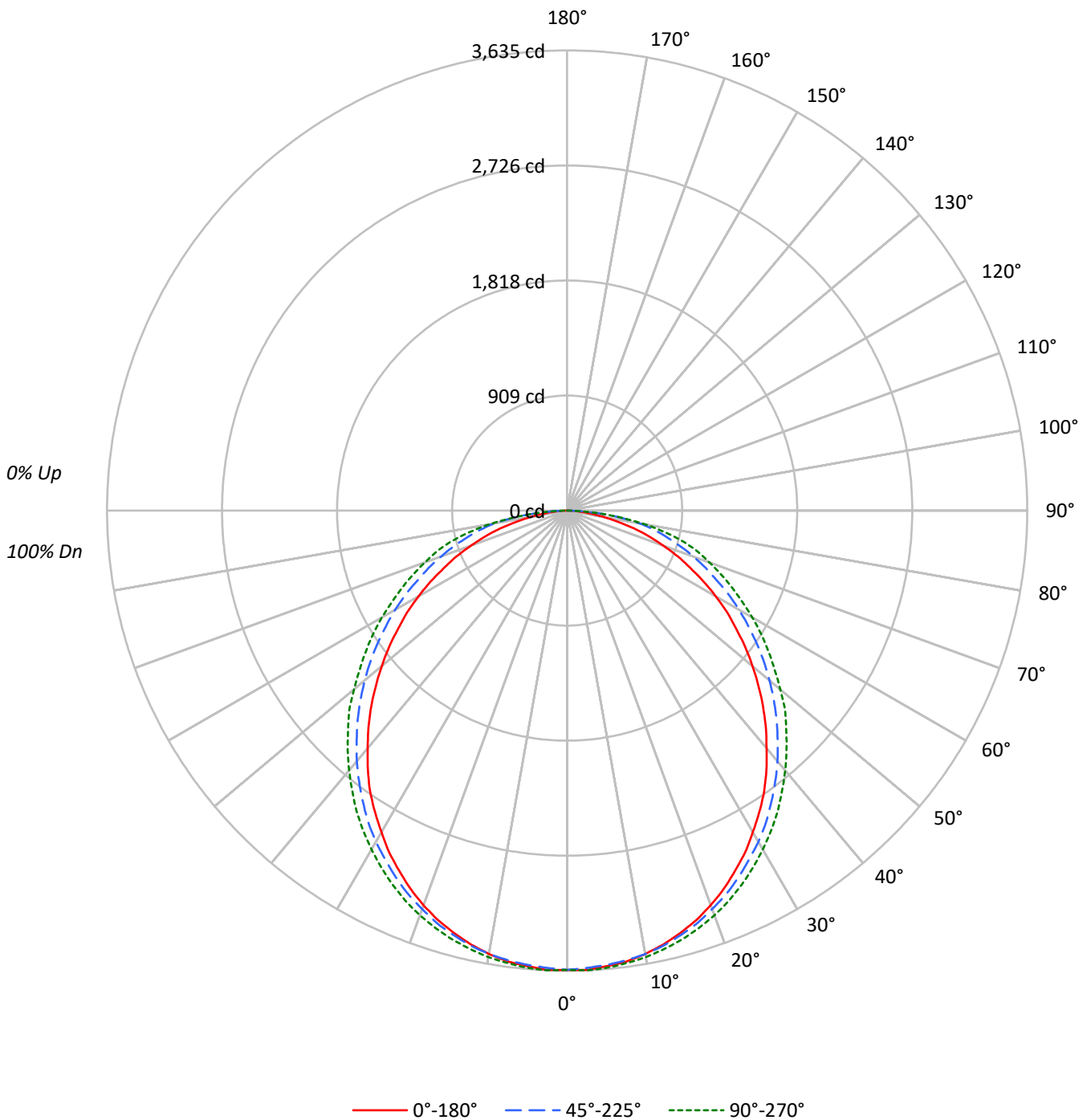
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4882	4882	4882
5°	4879	4865	4896
10°	4859	4859	4895
15°	4812	4835	4885
20°	4749	4796	4871
25°	4661	4749	4841
30°	4557	4694	4802
35°	4457	4618	4764
40°	4304	4541	4708
45°	4164	4451	4657
50°	4004	4368	4601
55°	3825	4287	4556
60°	3646	4220	4547
65°	3415	4147	4575
70°	3162	4169	4698
75°	2831	4247	4963
80°	2288	4499	4855
85°	1721	3951	3849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.5	3.3
10°-20°	981.6	9.5
20°-30°	1475.5	14.3
30°-40°	1757.5	17.0
40°-50°	1798.8	17.4
50°-60°	1619.4	15.7
60°-70°	1271.8	12.3
70°-80°	825.4	8.0
80°-90°	255.3	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°	2800.6	27.1
0°-40°	4558.1	44.1
0°-60°	7976.3	77.2
0°-90°	10328.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10328.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3628	3628	3628	3628	3628	
5°	3612	3619	3602	3622	3625	343
15°	3455	3464	3471	3501	3507	974
25°	3140	3166	3199	3251	3261	1446
35°	2713	2746	2812	2880	2900	1693
45°	2188	2241	2339	2428	2448	1687
55°	1630	1703	1827	1922	1942	1462
65°	1073	1155	1302	1411	1437	1068
75°	545	650	817	928	955	576
85°	112	207	256	249	249	135
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3628.5	3628.5	3628.5	3628.5	3628.5
2.5°	3631.8	3631.8	3615.4	3631.8	3635.1
5°	3612.1	3618.7	3602.3	3622.0	3625.3
7.5°	3592.5	3592.5	3582.6	3602.3	3605.6
10°	3556.4	3559.6	3556.4	3579.3	3582.6
12.5°	3510.4	3517.0	3520.3	3543.2	3546.5
15°	3454.7	3464.5	3471.1	3500.6	3507.2
17.5°	3392.3	3402.2	3418.6	3451.4	3457.9
20°	3316.9	3330.0	3349.7	3392.3	3402.2
22.5°	3234.8	3248.0	3280.8	3320.1	3336.6
25°	3139.7	3166.0	3198.8	3251.3	3261.1
27.5°	3044.6	3067.5	3110.2	3166.0	3179.1
30°	2933.0	2969.1	3021.6	3077.4	3090.5
32.5°	2824.7	2860.8	2923.2	2982.2	2998.6
35°	2713.2	2746.0	2811.6	2880.5	2900.2
37.5°	2585.3	2627.9	2700.1	2769.0	2788.7
40°	2450.7	2503.2	2585.3	2657.4	2680.4
42.5°	2322.8	2378.6	2460.6	2539.3	2565.6
45°	2188.3	2240.8	2339.2	2427.8	2447.5
47.5°	2050.5	2109.5	2214.5	2303.1	2335.9
50°	1912.7	1975.0	2086.6	2178.4	2198.1
52.5°	1774.9	1840.5	1958.6	2057.0	2066.9
55°	1630.5	1702.7	1827.4	1922.5	1942.2
57.5°	1499.3	1561.7	1696.2	1794.6	1817.6
60°	1355.0	1423.9	1568.2	1660.1	1689.6
62.5°	1217.2	1289.3	1440.3	1532.1	1558.4
65°	1072.8	1154.8	1302.5	1410.7	1437.0
67.5°	948.1	1026.9	1184.4	1289.3	1315.6
70°	803.8	892.4	1059.7	1168.0	1194.2
72.5°	679.1	771.0	938.3	1043.3	1082.7
75°	544.6	649.6	816.9	928.5	954.7
77.5°	413.4	534.8	705.4	790.7	790.7
80°	295.3	423.2	580.7	620.1	626.6
82.5°	193.6	318.2	429.8	426.5	426.5
85°	111.5	206.7	255.9	249.3	249.3
87.5°	42.7	85.3	91.9	91.9	88.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)