

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: P388584

Luminaire Tested: **24CZ2-100VHE-UNV-L935-CD1-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: P388584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8406.8 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

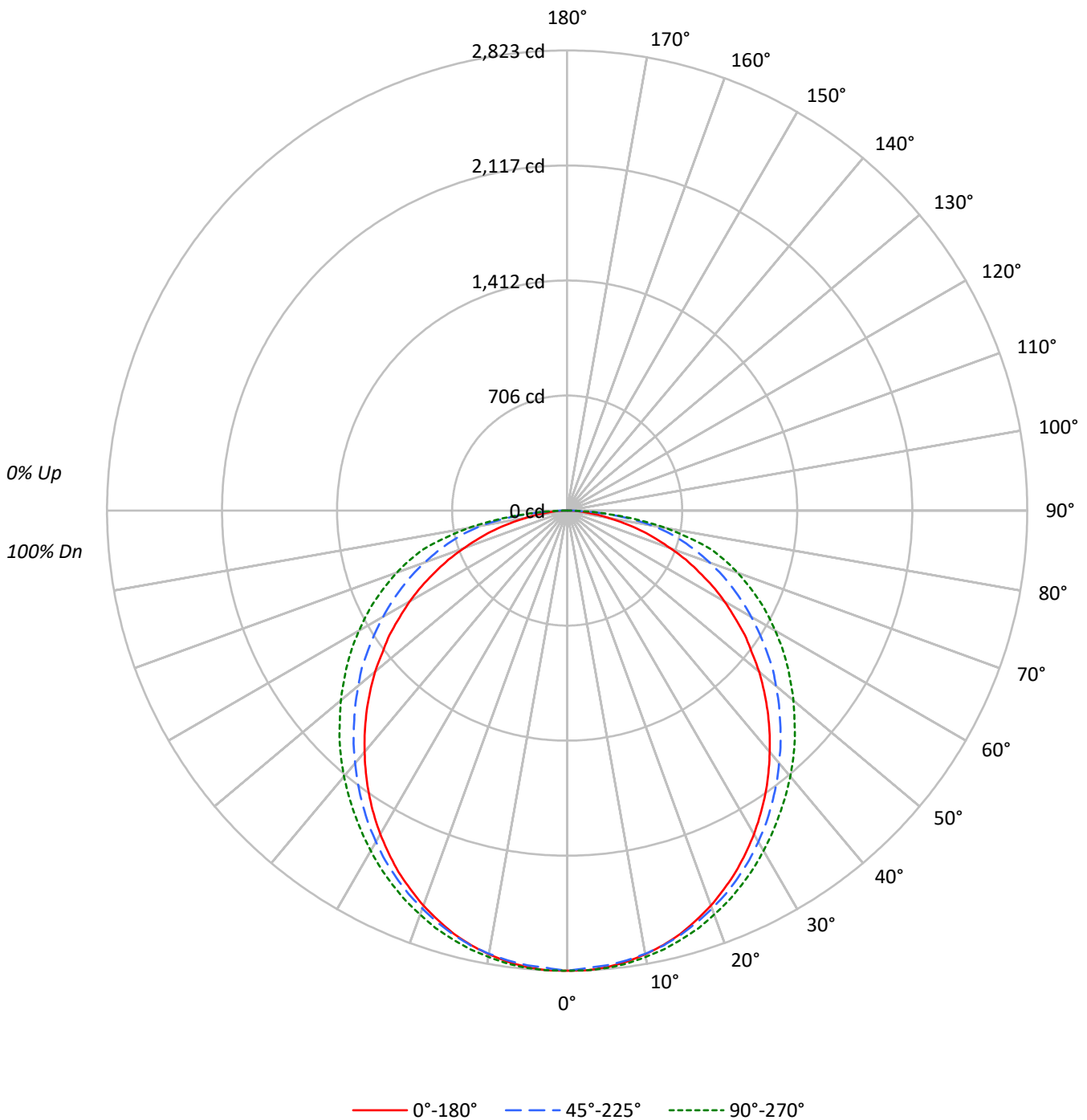
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3798	3798	3798
5°	3797	3782	3805
10°	3776	3772	3799
15°	3744	3752	3791
20°	3692	3720	3776
25°	3632	3686	3761
30°	3561	3644	3744
35°	3484	3599	3733
40°	3395	3553	3740
45°	3310	3518	3758
50°	3218	3500	3794
55°	3120	3495	3864
60°	2997	3511	3964
65°	2840	3564	4136
70°	2638	3653	4371
75°	2406	3836	4741
80°	1978	4131	4739
85°	1516	3812	4071



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.9	3.2
10°-20°	762.1	9.1
20°-30°	1146.9	13.6
30°-40°	1374.4	16.3
40°-50°	1432.2	17.0
50°-60°	1332.5	15.9
60°-70°	1097.5	13.1
70°-80°	747.5	8.9
80°-90°	246.8	2.9
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°	2175.9	25.9
0°-40°	3550.3	42.2
0°-60°	6315.1	75.1
0°-90°	8406.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8406.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2823	2823	2823	2823	2823	
5°	2811	2811	2800	2814	2817	267
15°	2688	2691	2694	2719	2722	757
25°	2447	2458	2483	2525	2534	1126
35°	2121	2146	2191	2250	2273	1326
45°	1740	1776	1849	1942	1975	1342
55°	1330	1375	1490	1608	1647	1185
65°	892	968	1120	1251	1299	886
75°	463	567	738	870	912	488
85°	98	191	247	264	264	122
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2822.6	2822.6	2822.6	2822.6	2822.6
2.5°	2822.6	2822.6	2808.5	2822.6	2822.6
5°	2811.3	2811.3	2800.1	2814.1	2816.9
7.5°	2791.7	2794.5	2783.3	2800.1	2802.9
10°	2763.6	2766.4	2760.8	2777.7	2780.5
12.5°	2730.0	2732.8	2732.8	2752.4	2755.2
15°	2687.9	2690.7	2693.5	2718.7	2721.5
17.5°	2634.6	2643.0	2648.6	2679.5	2685.1
20°	2578.5	2586.9	2598.1	2631.8	2637.4
22.5°	2513.9	2525.1	2544.8	2581.3	2589.7
25°	2446.6	2457.8	2483.1	2525.1	2533.6
27.5°	2370.8	2387.7	2418.5	2463.4	2474.6
30°	2292.3	2309.1	2345.6	2393.3	2410.1
32.5°	2208.1	2230.5	2272.6	2325.9	2342.8
35°	2121.1	2146.4	2191.3	2250.2	2272.6
37.5°	2028.5	2056.6	2109.9	2174.4	2202.5
40°	1933.1	1966.8	2022.9	2098.7	2129.5
42.5°	1837.7	1868.6	1938.8	2020.1	2053.8
45°	1739.5	1776.0	1849.0	1941.6	1975.2
47.5°	1638.5	1675.0	1762.0	1860.2	1891.1
50°	1537.5	1574.0	1672.2	1776.0	1812.5
52.5°	1428.1	1475.8	1588.0	1691.8	1728.3
55°	1329.9	1374.8	1489.8	1607.7	1647.0
57.5°	1217.7	1271.0	1397.2	1520.7	1562.8
60°	1113.9	1170.0	1304.7	1430.9	1473.0
62.5°	1007.3	1069.0	1212.1	1341.1	1388.8
65°	892.2	968.0	1119.5	1251.4	1299.0
67.5°	788.4	867.0	1026.9	1161.6	1203.7
70°	670.6	766.0	928.7	1063.4	1111.1
72.5°	569.6	665.0	836.1	968.0	1015.7
75°	462.9	566.8	737.9	869.8	911.9
77.5°	356.3	471.4	642.5	743.5	757.5
80°	255.3	376.0	533.1	592.0	611.6
82.5°	179.6	289.0	392.8	432.1	443.3
85°	98.2	190.8	246.9	263.7	263.7
87.5°	42.1	81.4	98.2	101.0	103.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)