

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: P388375

Luminaire Tested: **24CZ2-130VHE-SQR-UNV-L940-CD2-SWPD1-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: P388375
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-SQR-UNV-L940-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10752.2 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

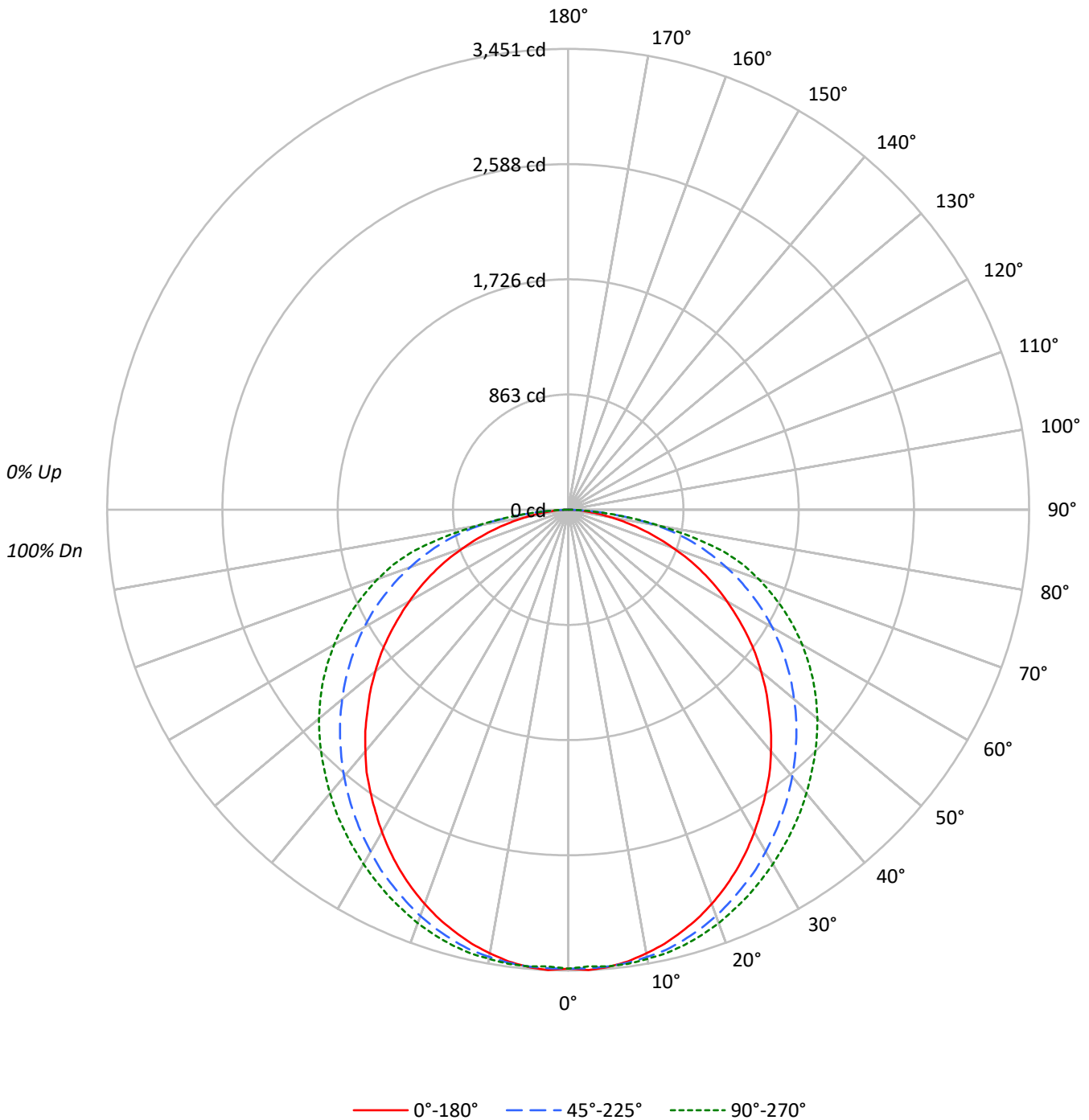
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4624	4624	4624
5°	4642	4637	4637
10°	4608	4647	4667
15°	4560	4649	4698
20°	4499	4636	4718
25°	4422	4612	4733
30°	4330	4595	4761
35°	4240	4584	4805
40°	4147	4584	4871
45°	4040	4594	4966
50°	3946	4623	5098
55°	3831	4673	5256
60°	3698	4749	5446
65°	3538	4838	5675
70°	3282	4958	5964
75°	2972	5132	6239
80°	2503	5145	5365
85°	1919	3892	3892



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.2	3.0
10°-20°	938.6	8.7
20°-30°	1425.7	13.3
30°-40°	1734.2	16.1
40°-50°	1846.4	17.2
50°-60°	1758.6	16.4
60°-70°	1470.7	13.7
70°-80°	980.5	9.1
80°-90°	271.3	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°	2690.6	25.0
0°-40°	4424.8	41.2
0°-60°	8029.7	74.7
0°-90°	10752.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10752.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3437	3437	3437	3437	3437	
5°	3437	3416	3433	3433	3433	326
15°	3274	3281	3338	3362	3373	923
25°	2979	3018	3107	3160	3188	1372
35°	2581	2656	2791	2883	2926	1615
45°	2123	2237	2414	2549	2610	1641
55°	1633	1775	1992	2166	2240	1460
65°	1111	1275	1520	1708	1782	1098
75°	572	753	987	1154	1200	606
85°	124	231	252	248	252	150
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3436.9	3436.9	3436.9	3436.9	3436.9
2.5°	3451.1	3426.3	3436.9	3436.9	3422.7
5°	3436.9	3415.6	3433.4	3433.4	3433.4
7.5°	3412.1	3394.3	3422.7	3429.8	3429.8
10°	3373.0	3365.9	3401.4	3412.1	3415.6
12.5°	3330.4	3326.9	3376.6	3390.8	3401.4
15°	3273.6	3280.7	3337.5	3362.4	3373.0
17.5°	3213.2	3227.4	3291.4	3326.9	3337.5
20°	3142.2	3163.5	3238.1	3273.6	3294.9
22.5°	3064.1	3096.1	3174.2	3216.8	3241.6
25°	2978.9	3018.0	3106.7	3160.0	3188.4
27.5°	2886.6	2936.3	3039.3	3099.6	3128.0
30°	2787.2	2844.0	2957.6	3028.6	3064.1
32.5°	2684.2	2751.7	2875.9	2954.1	2996.7
35°	2581.2	2655.8	2790.7	2883.0	2925.6
37.5°	2478.3	2552.8	2702.0	2801.4	2854.6
40°	2361.1	2449.9	2609.6	2719.7	2773.0
42.5°	2247.5	2343.4	2513.8	2634.5	2691.3
45°	2123.2	2236.8	2414.4	2549.3	2609.6
47.5°	2009.6	2123.2	2315.0	2457.0	2524.4
50°	1885.3	2006.1	2208.4	2364.7	2435.7
52.5°	1764.6	1888.9	2101.9	2268.8	2339.8
55°	1633.3	1775.3	1991.9	2165.8	2240.4
57.5°	1501.9	1654.6	1878.2	2059.3	2133.9
60°	1374.1	1530.3	1764.6	1945.7	2023.8
62.5°	1246.2	1402.5	1647.5	1832.1	1906.6
65°	1111.3	1274.6	1519.6	1707.8	1782.4
67.5°	976.4	1146.8	1391.8	1580.0	1651.0
70°	834.4	1015.5	1260.4	1445.1	1516.1
72.5°	703.0	884.1	1125.5	1306.6	1374.1
75°	571.6	752.7	987.1	1153.9	1200.1
77.5°	443.8	624.9	834.4	944.4	955.1
80°	323.1	493.5	664.0	695.9	692.4
82.5°	216.6	369.3	458.0	461.6	472.2
85°	124.3	230.8	252.1	248.5	252.1
87.5°	49.7	81.7	71.0	53.3	53.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)