

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: P391150

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L930-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: P391150
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-RDP-UNV-L930-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9328.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

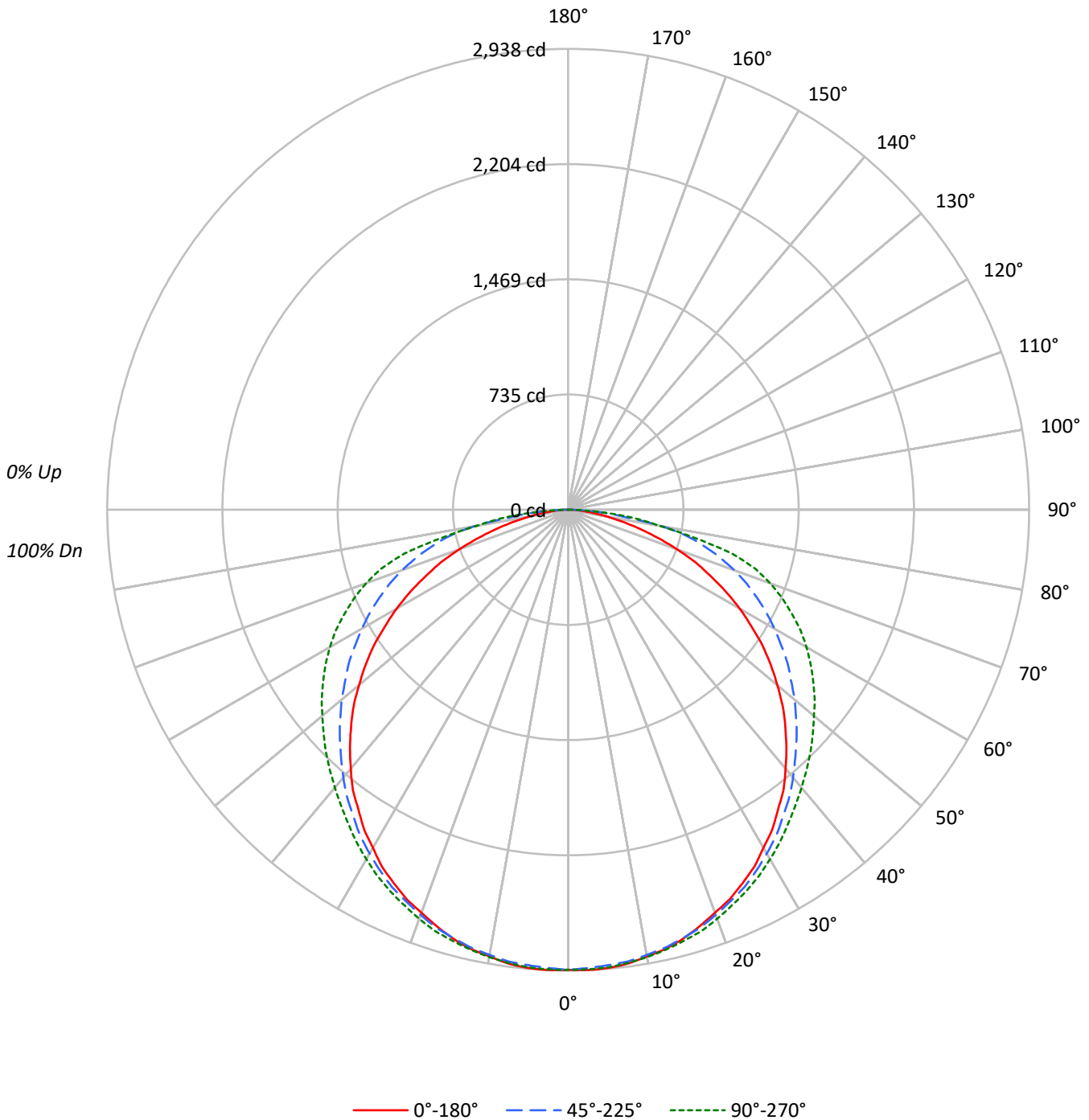
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3947	3947	3947
5°	3962	3937	3956
10°	3951	3938	3957
15°	3944	3938	3964
20°	3915	3935	3975
25°	3901	3943	3984
30°	3867	3932	3997
35°	3830	3921	4013
40°	3787	3917	4063
45°	3724	3918	4155
50°	3642	3942	4281
55°	3549	4005	4472
60°	3399	4084	4719
65°	3182	4228	5008
70°	2894	4423	5388
75°	2453	4666	5628
80°	1936	4696	4553
85°	1428	3571	4000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.3	3.0
10°-20°	800.8	8.6
20°-30°	1224.6	13.1
30°-40°	1497.1	16.0
40°-50°	1595.6	17.1
50°-60°	1525.6	16.4
60°-70°	1292.4	13.9
70°-80°	868.6	9.3
80°-90°	245.0	2.6
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°	2303.7	24.7
0°-40°	3800.8	40.7
0°-60°	6922.0	74.2
0°-90°	9328.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9328.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2933	2933	2933	2933	2933	
5°	2933	2929	2915	2929	2929	279
15°	2832	2832	2827	2850	2846	798
25°	2628	2637	2656	2679	2684	1211
35°	2332	2350	2387	2434	2443	1461
45°	1957	1990	2059	2147	2184	1510
55°	1513	1568	1707	1842	1906	1348
65°	999	1101	1328	1504	1573	992
75°	472	643	898	1050	1083	505
85°	92	190	231	250	259	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2933.4	2933.4	2933.4	2933.4	2933.4
2.5°	2938.0	2938.0	2924.1	2933.4	2933.4
5°	2933.4	2928.8	2914.9	2928.8	2928.8
7.5°	2919.5	2914.9	2905.6	2919.5	2914.9
10°	2891.7	2891.7	2882.5	2896.4	2896.4
12.5°	2868.6	2864.0	2859.4	2877.9	2873.2
15°	2831.6	2831.6	2827.0	2850.1	2845.5
17.5°	2785.3	2790.0	2794.6	2813.1	2817.7
20°	2734.4	2743.7	2748.3	2776.1	2776.1
22.5°	2688.2	2692.8	2702.0	2729.8	2729.8
25°	2628.0	2637.3	2655.8	2678.9	2683.5
27.5°	2567.9	2572.5	2595.6	2628.0	2632.6
30°	2489.2	2503.1	2530.9	2567.9	2572.5
32.5°	2419.8	2433.7	2466.1	2503.1	2512.4
35°	2331.9	2350.4	2387.4	2433.7	2442.9
37.5°	2253.3	2267.1	2313.4	2364.3	2378.2
40°	2156.1	2183.8	2230.1	2290.3	2313.4
42.5°	2058.9	2086.7	2142.2	2220.9	2248.6
45°	1957.1	1989.5	2058.9	2146.8	2183.8
47.5°	1855.3	1892.4	1971.0	2072.8	2114.4
50°	1739.7	1785.9	1883.1	1998.8	2045.0
52.5°	1628.6	1684.2	1790.6	1920.1	1980.3
55°	1513.0	1568.5	1707.3	1841.5	1906.2
57.5°	1383.4	1457.4	1610.1	1762.8	1832.2
60°	1263.1	1332.5	1517.6	1684.2	1753.6
62.5°	1133.6	1226.1	1425.1	1600.9	1670.3
65°	999.4	1101.2	1327.9	1503.7	1573.1
67.5°	879.1	990.1	1230.7	1406.5	1475.9
70°	735.7	874.5	1124.3	1300.1	1369.5
72.5°	601.5	754.2	1013.3	1184.5	1249.2
75°	471.9	643.1	897.6	1050.3	1082.7
77.5°	351.6	532.1	777.3	842.1	818.9
80°	249.8	425.7	606.1	573.7	587.6
82.5°	161.9	323.9	374.8	425.7	439.5
85°	92.5	189.7	231.3	249.8	259.1
87.5°	41.6	69.4	92.5	92.5	87.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)