

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: P391009

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L935-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: P391009
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: 24CZ2-120VHE-RDP-UNV-L935-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6857.5 lumens
Efficiency: N/A
Efficacy: 82.0 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

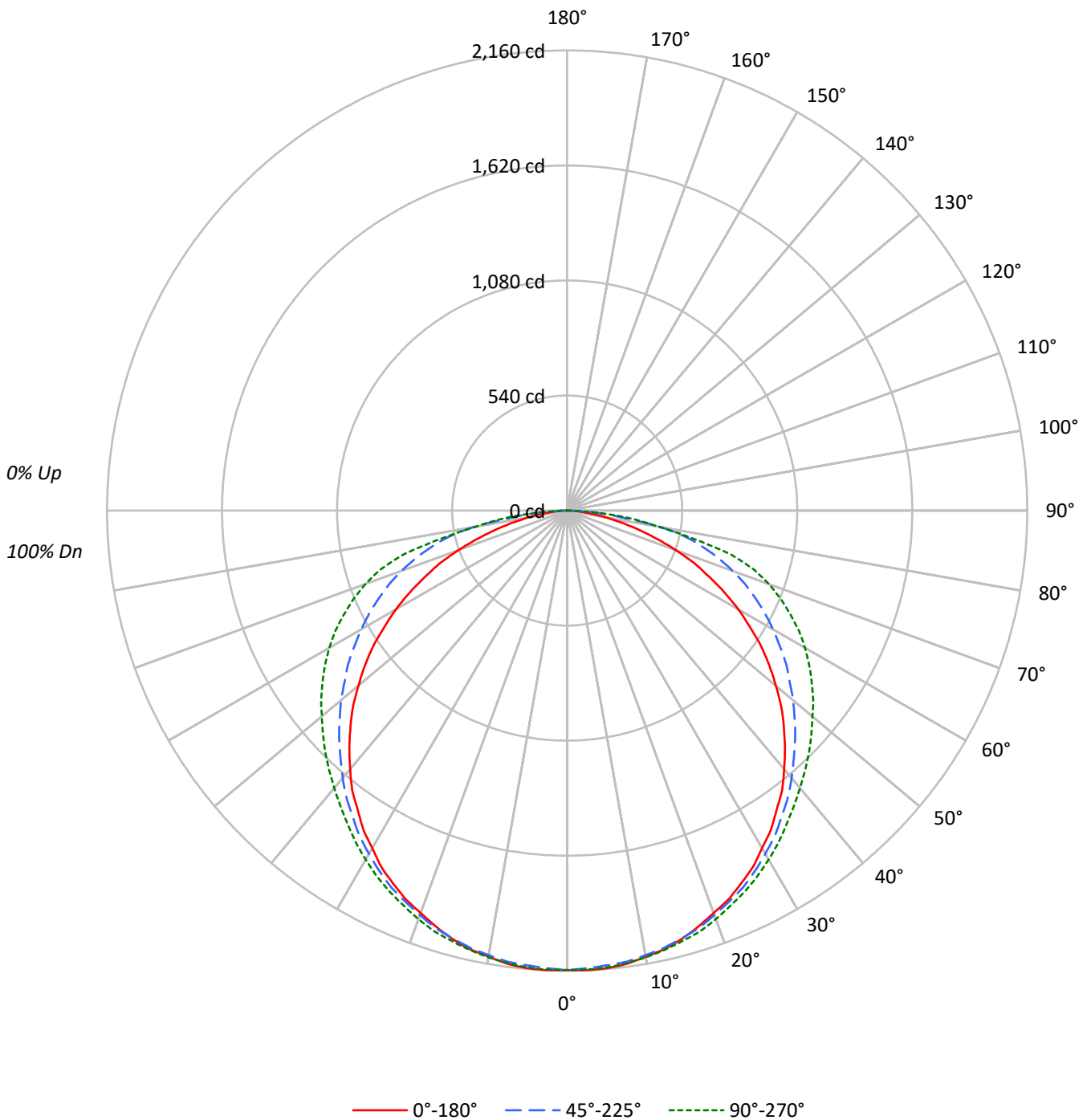
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2902	2902	2902
5°	2913	2894	2908
10°	2905	2895	2909
15°	2900	2895	2914
20°	2878	2893	2922
25°	2868	2899	2929
30°	2843	2891	2938
35°	2816	2883	2950
40°	2784	2880	2987
45°	2738	2880	3055
50°	2677	2898	3147
55°	2609	2944	3287
60°	2499	3002	3469
65°	2339	3108	3682
70°	2127	3251	3961
75°	1803	3431	4138
80°	1423	3453	3347
85°	1050	2626	2941



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.6	3.0
10°-20°	588.7	8.6
20°-30°	900.3	13.1
30°-40°	1100.6	16.0
40°-50°	1173.0	17.1
50°-60°	1121.6	16.4
60°-70°	950.1	13.9
70°-80°	638.5	9.3
80°-90°	180.1	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°	1693.6	24.7
0°-40°	2794.2	40.7
0°-60°	5088.7	74.2
0°-90°	6857.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6857.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2156	2156	2156	2156	2156	
5°	2156	2153	2143	2153	2153	205
15°	2082	2082	2078	2095	2092	587
25°	1932	1939	1952	1969	1973	890
35°	1714	1728	1755	1789	1796	1074
45°	1439	1463	1514	1578	1606	1110
55°	1112	1153	1255	1354	1401	991
65°	735	810	976	1106	1156	729
75°	347	473	660	772	796	371
85°	68	140	170	184	190	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2156.5	2156.5	2156.5	2156.5	2156.5
2.5°	2159.9	2159.9	2149.7	2156.5	2156.5
5°	2156.5	2153.1	2142.9	2153.1	2153.1
7.5°	2146.3	2142.9	2136.1	2146.3	2142.9
10°	2125.9	2125.9	2119.1	2129.3	2129.3
12.5°	2108.9	2105.5	2102.1	2115.7	2112.3
15°	2081.7	2081.7	2078.3	2095.3	2091.9
17.5°	2047.6	2051.0	2054.4	2068.1	2071.5
20°	2010.2	2017.0	2020.4	2040.8	2040.8
22.5°	1976.2	1979.6	1986.4	2006.8	2006.8
25°	1932.0	1938.8	1952.4	1969.4	1972.8
27.5°	1887.8	1891.2	1908.2	1932.0	1935.4
30°	1830.0	1840.2	1860.6	1887.8	1891.2
32.5°	1778.9	1789.1	1812.9	1840.2	1847.0
35°	1714.3	1727.9	1755.1	1789.1	1795.9
37.5°	1656.5	1666.7	1700.7	1738.1	1748.3
40°	1585.1	1605.5	1639.5	1683.7	1700.7
42.5°	1513.6	1534.0	1574.8	1632.7	1653.1
45°	1438.8	1462.6	1513.6	1578.2	1605.5
47.5°	1364.0	1391.2	1449.0	1523.8	1554.4
50°	1278.9	1312.9	1384.4	1469.4	1503.4
52.5°	1197.3	1238.1	1316.3	1411.6	1455.8
55°	1112.3	1153.1	1255.1	1353.8	1401.4
57.5°	1017.0	1071.4	1183.7	1295.9	1347.0
60°	928.6	979.6	1115.7	1238.1	1289.1
62.5°	833.3	901.4	1047.6	1176.9	1227.9
65°	734.7	809.5	976.2	1105.5	1156.5
67.5°	646.3	727.9	904.8	1034.0	1085.0
70°	540.8	642.9	826.5	955.8	1006.8
72.5°	442.2	554.4	744.9	870.8	918.4
75°	346.9	472.8	659.9	772.1	795.9
77.5°	258.5	391.2	571.4	619.1	602.0
80°	183.7	312.9	445.6	421.8	432.0
82.5°	119.0	238.1	275.5	312.9	323.1
85°	68.0	139.5	170.1	183.7	190.5
87.5°	30.6	51.0	68.0	68.0	64.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)