

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: P391082

Luminaire Tested: **24CZ2-150VHE-HRP-UNV-L935-CD2-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: P391082
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: 24CZ2-150VHE-HRP-UNV-L935-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10769.4 lumens
Efficiency: N/A
Efficacy: 103.4 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

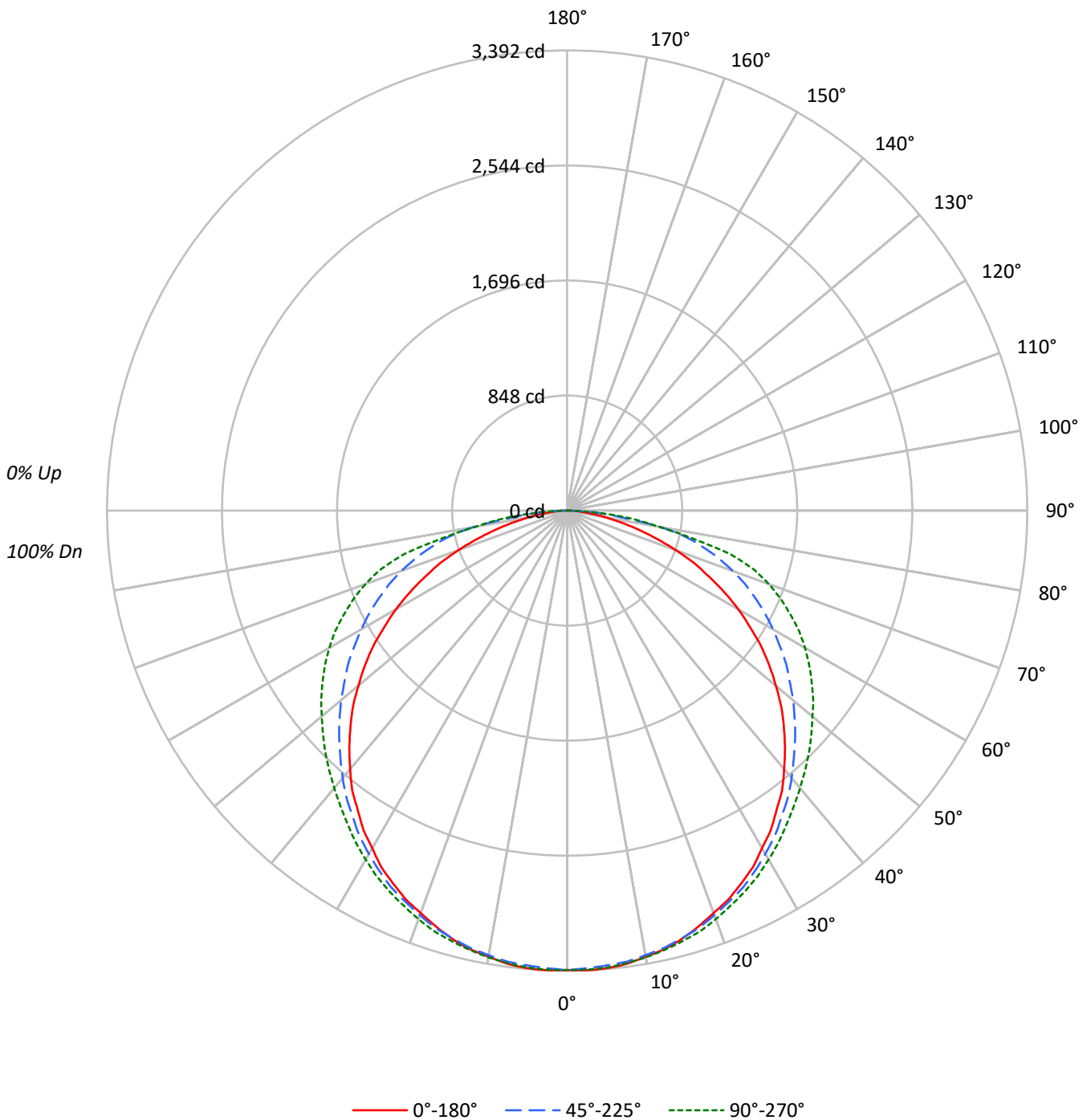
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4557	4557	4557
5°	4574	4545	4567
10°	4561	4547	4569
15°	4554	4546	4576
20°	4520	4543	4589
25°	4504	4552	4600
30°	4465	4540	4614
35°	4422	4527	4633
40°	4372	4522	4691
45°	4300	4523	4798
50°	4204	4551	4942
55°	4098	4624	5163
60°	3924	4715	5448
65°	3673	4881	5782
70°	3341	5106	6220
75°	2833	5387	6498
80°	2235	5422	5256
85°	1649	4123	4617



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.3	3.0
10°-20°	924.6	8.6
20°-30°	1413.9	13.1
30°-40°	1728.4	16.0
40°-50°	1842.2	17.1
50°-60°	1761.4	16.4
60°-70°	1492.1	13.9
70°-80°	1002.8	9.3
80°-90°	282.9	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°	2659.7	24.7
0°-40°	4388.1	40.7
0°-60°	7991.7	74.2
0°-90°	10769.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10769.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3387	3387	3387	3387	3387	
5°	3387	3381	3365	3381	3381	322
15°	3269	3269	3264	3290	3285	922
25°	3034	3045	3066	3093	3098	1398
35°	2692	2714	2756	2810	2820	1687
45°	2260	2297	2377	2479	2521	1743
55°	1747	1811	1971	2126	2201	1556
65°	1154	1271	1533	1736	1816	1145
75°	545	742	1036	1213	1250	583
85°	107	219	267	288	299	132
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3386.7	3386.7	3386.7	3386.7	3386.7
2.5°	3392.0	3392.0	3376.0	3386.7	3386.7
5°	3386.7	3381.3	3365.3	3381.3	3381.3
7.5°	3370.6	3365.3	3354.6	3370.6	3365.3
10°	3338.6	3338.6	3327.9	3343.9	3343.9
12.5°	3311.9	3306.5	3301.2	3322.6	3317.2
15°	3269.2	3269.2	3263.8	3290.5	3285.2
17.5°	3215.7	3221.1	3226.4	3247.8	3253.1
20°	3157.0	3167.7	3173.0	3205.0	3205.0
22.5°	3103.6	3108.9	3119.6	3151.6	3151.6
25°	3034.1	3044.8	3066.2	3092.9	3098.2
27.5°	2964.7	2970.0	2996.7	3034.1	3039.5
30°	2873.9	2889.9	2921.9	2964.7	2970.0
32.5°	2793.7	2809.8	2847.2	2889.9	2900.6
35°	2692.2	2713.6	2756.3	2809.8	2820.4
37.5°	2601.4	2617.5	2670.9	2729.6	2745.7
40°	2489.3	2521.3	2574.7	2644.2	2670.9
42.5°	2377.1	2409.1	2473.2	2564.0	2596.1
45°	2259.6	2297.0	2377.1	2478.6	2521.3
47.5°	2142.0	2184.8	2275.6	2393.1	2441.2
50°	2008.5	2061.9	2174.1	2307.6	2361.1
52.5°	1880.3	1944.4	2067.3	2216.8	2286.3
55°	1746.8	1810.9	1971.1	2126.0	2200.8
57.5°	1597.2	1682.7	1858.9	2035.2	2115.3
60°	1458.3	1538.4	1752.1	1944.4	2024.5
62.5°	1308.7	1415.6	1645.3	1848.2	1928.4
65°	1153.8	1271.3	1533.1	1736.1	1816.2
67.5°	1014.9	1143.1	1420.9	1623.9	1704.0
70°	849.3	1009.6	1298.0	1501.0	1581.2
72.5°	694.4	870.7	1169.8	1367.5	1442.3
75°	544.9	742.5	1036.3	1212.6	1250.0
77.5°	406.0	614.3	897.4	972.2	945.5
80°	288.5	491.4	699.8	662.4	678.4
82.5°	187.0	373.9	432.7	491.4	507.5
85°	106.8	219.0	267.1	288.5	299.1
87.5°	48.1	80.1	106.8	106.8	101.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)