

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: P391080

Luminaire Tested: **24CZ2-150VHE-HRP-UNV-L935-CD2-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: P391080
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-SDWPD1-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: 10507.5 lumens
Efficiency: N/A
Efficacy: 100.8 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

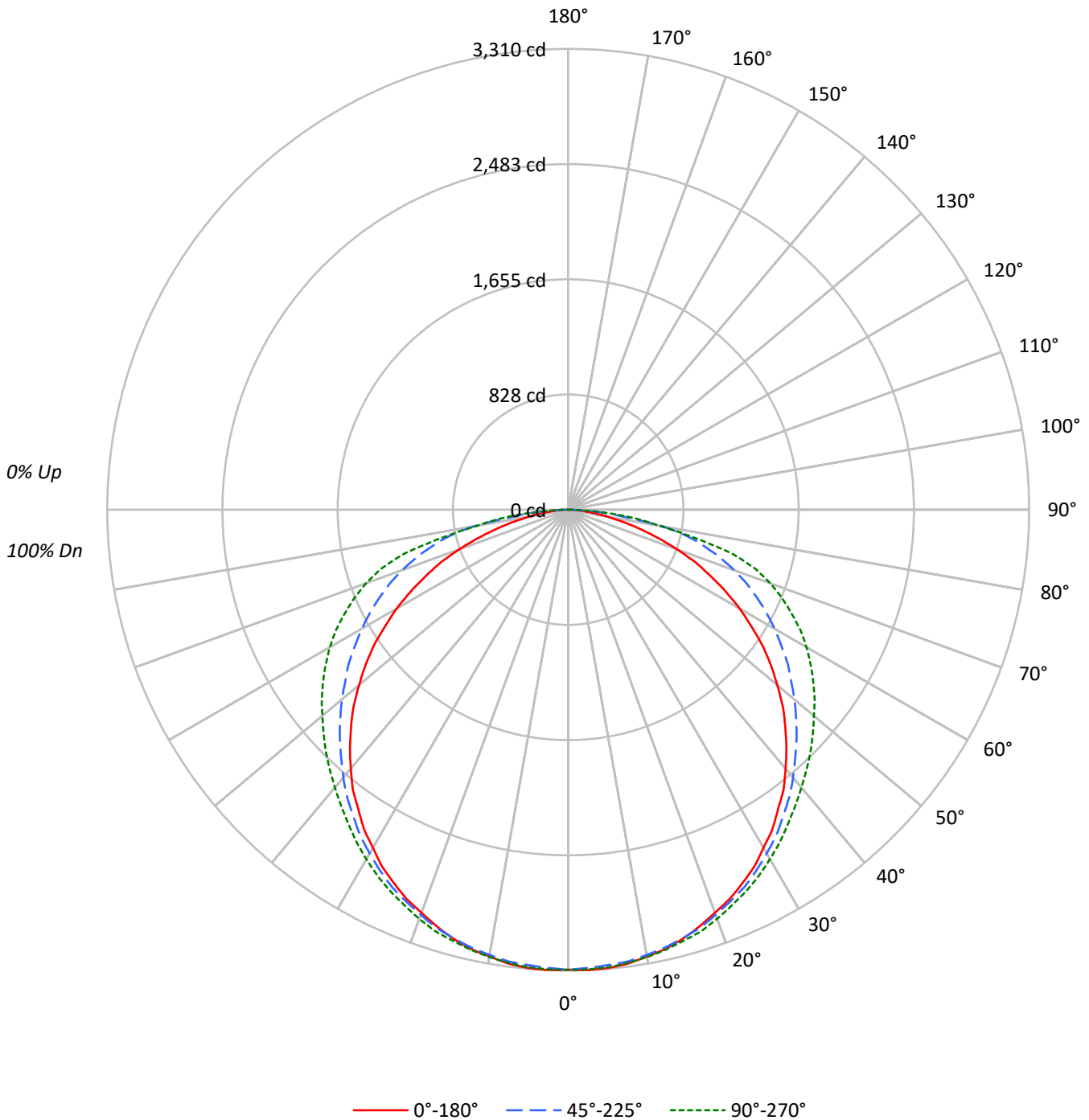
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4446	4446	4446
5°	4463	4435	4456
10°	4450	4436	4458
15°	4443	4436	4465
20°	4410	4433	4478
25°	4395	4441	4488
30°	4356	4429	4502
35°	4315	4417	4520
40°	4266	4412	4577
45°	4195	4413	4681
50°	4102	4440	4822
55°	3998	4511	5037
60°	3829	4600	5315
65°	3584	4762	5642
70°	3260	4982	6069
75°	2764	5256	6340
80°	2180	5291	5129
85°	1609	4023	4506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.4	3.0
10°-20°	902.1	8.6
20°-30°	1379.5	13.1
30°-40°	1686.4	16.0
40°-50°	1797.4	17.1
50°-60°	1718.5	16.4
60°-70°	1455.8	13.9
70°-80°	978.4	9.3
80°-90°	276.0	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°	2595.0	24.7
0°-40°	4281.4	40.7
0°-60°	7797.3	74.2
0°-90°	10507.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10507.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3304	3304	3304	3304	3304	
5°	3304	3299	3284	3299	3299	314
15°	3190	3190	3184	3210	3205	899
25°	2960	2971	2992	3018	3023	1364
35°	2627	2648	2689	2741	2752	1646
45°	2205	2241	2319	2418	2460	1700
55°	1704	1767	1923	2074	2147	1518
65°	1126	1240	1496	1694	1772	1118
75°	532	724	1011	1183	1220	569
85°	104	214	261	281	292	129
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3304.3	3304.3	3304.3	3304.3	3304.3
2.5°	3309.5	3309.5	3293.9	3304.3	3304.3
5°	3304.3	3299.1	3283.5	3299.1	3299.1
7.5°	3288.7	3283.5	3273.0	3288.7	3283.5
10°	3257.4	3257.4	3247.0	3262.6	3262.6
12.5°	3231.3	3226.1	3220.9	3241.8	3236.6
15°	3189.6	3189.6	3184.4	3210.5	3205.3
17.5°	3137.5	3142.7	3148.0	3168.8	3174.0
20°	3080.2	3090.6	3095.8	3127.1	3127.1
22.5°	3028.1	3033.3	3043.7	3075.0	3075.0
25°	2960.3	2970.8	2991.6	3017.7	3022.9
27.5°	2892.6	2897.8	2923.8	2960.3	2965.5
30°	2804.0	2819.6	2850.9	2892.6	2897.8
32.5°	2725.8	2741.4	2777.9	2819.6	2830.0
35°	2626.8	2647.6	2689.3	2741.4	2751.9
37.5°	2538.2	2553.8	2605.9	2663.3	2678.9
40°	2428.7	2460.0	2512.1	2579.9	2605.9
42.5°	2319.3	2350.5	2413.1	2501.7	2533.0
45°	2204.6	2241.1	2319.3	2418.3	2460.0
47.5°	2089.9	2131.6	2220.2	2334.9	2381.8
50°	1959.7	2011.8	2121.2	2251.5	2303.6
52.5°	1834.6	1897.1	2017.0	2162.9	2230.7
55°	1704.3	1766.8	1923.2	2074.3	2147.3
57.5°	1558.3	1641.7	1813.7	1985.7	2063.9
60°	1422.8	1501.0	1709.5	1897.1	1975.3
62.5°	1276.9	1381.1	1605.2	1803.3	1881.5
65°	1125.8	1240.4	1495.8	1693.8	1772.0
67.5°	990.3	1115.3	1386.4	1584.4	1662.6
70°	828.7	985.0	1266.5	1464.5	1542.7
72.5°	677.5	849.5	1141.4	1334.2	1407.2
75°	531.6	724.4	1011.1	1183.1	1219.6
77.5°	396.1	599.4	875.6	948.6	922.5
80°	281.4	479.5	682.8	646.3	661.9
82.5°	182.4	364.8	422.2	479.5	495.1
85°	104.2	213.7	260.6	281.4	291.9
87.5°	46.9	78.2	104.2	104.2	99.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)