

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: P391087

Luminaire Tested: **24CZ2-150VHE-HRP-UNV-L950-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: P391087
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-L950-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11405.9 lumens
Efficiency: N/A
Efficacy: 109.5 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

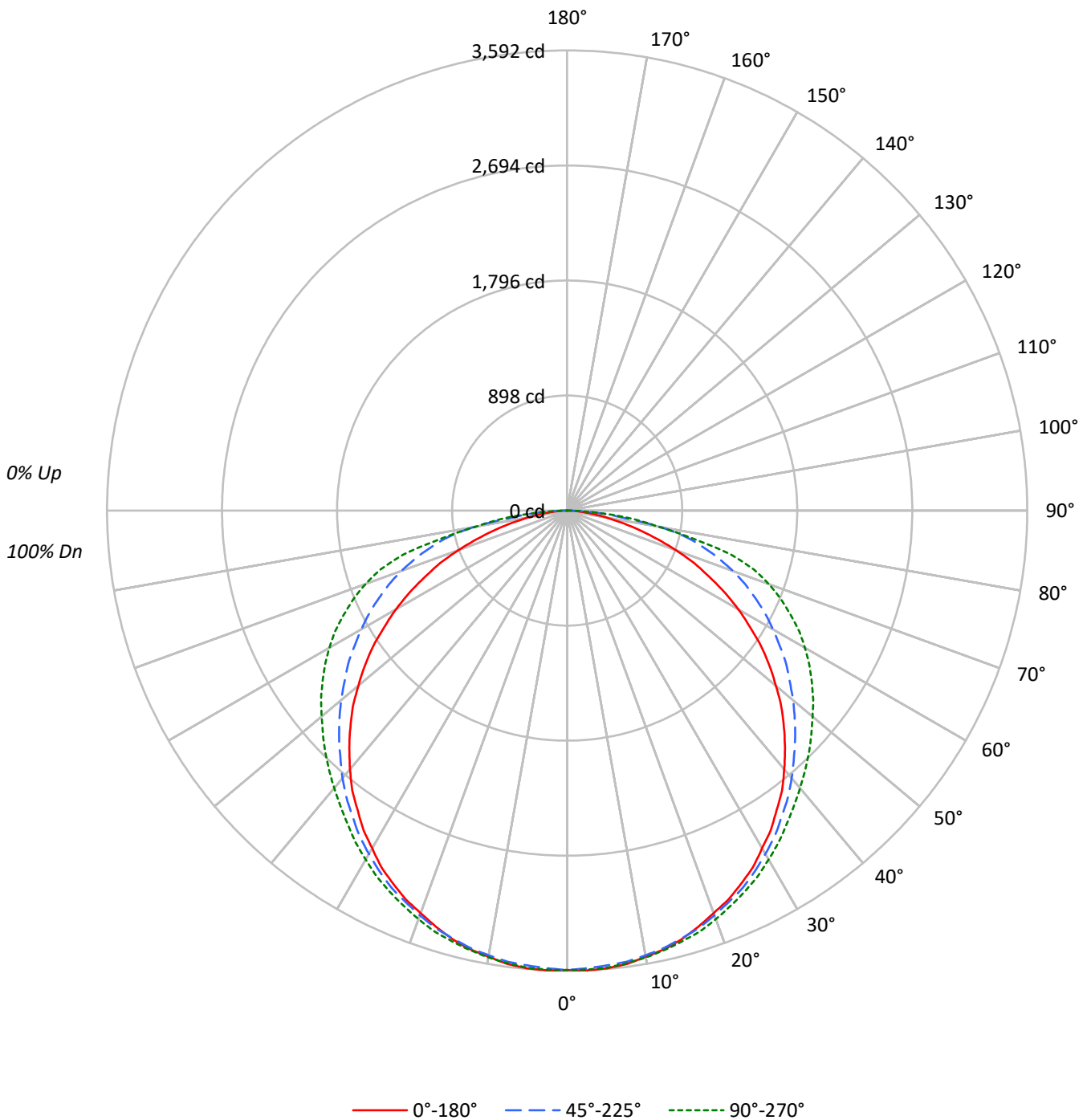
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4826	4826	4826
5°	4844	4814	4837
10°	4831	4815	4839
15°	4823	4815	4847
20°	4787	4812	4860
25°	4771	4821	4871
30°	4729	4808	4887
35°	4684	4795	4906
40°	4631	4790	4968
45°	4554	4791	5081
50°	4453	4820	5234
55°	4340	4897	5468
60°	4156	4993	5770
65°	3890	5169	6124
70°	3539	5408	6588
75°	3000	5705	6882
80°	2367	5742	5567
85°	1746	4367	4891



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.2	3.0
10°-20°	979.2	8.6
20°-30°	1497.4	13.1
30°-40°	1830.6	16.0
40°-50°	1951.0	17.1
50°-60°	1865.4	16.4
60°-70°	1580.3	13.9
70°-80°	1062.1	9.3
80°-90°	299.6	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°	2816.9	24.7
0°-40°	4647.5	40.7
0°-60°	8464.0	74.2
0°-90°	11405.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11405.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3587	3587	3587	3587	3587	
5°	3587	3581	3564	3581	3581	341
15°	3462	3462	3457	3485	3479	976
25°	3213	3225	3247	3276	3281	1481
35°	2851	2874	2919	2976	2987	1786
45°	2393	2433	2518	2625	2670	1846
55°	1850	1918	2088	2252	2331	1648
65°	1222	1346	1624	1839	1924	1213
75°	577	786	1098	1284	1324	618
85°	113	232	283	306	317	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3586.8	3586.8	3586.8	3586.8	3586.8
2.5°	3592.5	3592.5	3575.5	3586.8	3586.8
5°	3586.8	3581.2	3564.2	3581.2	3581.2
7.5°	3569.9	3564.2	3552.9	3569.9	3564.2
10°	3535.9	3535.9	3524.6	3541.6	3541.6
12.5°	3507.6	3502.0	3496.3	3518.9	3513.3
15°	3462.4	3462.4	3456.7	3485.0	3479.3
17.5°	3405.8	3411.4	3417.1	3439.7	3445.4
20°	3343.6	3354.9	3360.5	3394.5	3394.5
22.5°	3287.0	3292.6	3304.0	3337.9	3337.9
25°	3213.4	3224.8	3247.4	3275.7	3281.3
27.5°	3139.9	3145.5	3173.8	3213.4	3219.1
30°	3043.7	3060.7	3094.6	3139.9	3145.5
32.5°	2958.9	2975.8	3015.4	3060.7	3072.0
35°	2851.4	2874.0	2919.2	2975.8	2987.1
37.5°	2755.2	2772.2	2828.7	2891.0	2907.9
40°	2636.4	2670.3	2726.9	2800.4	2828.7
42.5°	2517.6	2551.5	2619.4	2715.6	2749.5
45°	2393.1	2432.7	2517.6	2625.1	2670.3
47.5°	2268.6	2313.9	2410.1	2534.5	2585.5
50°	2127.2	2183.8	2302.6	2444.0	2500.6
52.5°	1991.4	2059.3	2189.4	2347.8	2421.4
55°	1850.0	1917.9	2087.6	2251.7	2330.9
57.5°	1691.6	1782.1	1968.8	2155.5	2240.4
60°	1544.5	1629.3	1855.6	2059.3	2144.2
62.5°	1386.1	1499.2	1742.5	1957.5	2042.3
65°	1222.0	1346.5	1623.7	1838.7	1923.5
67.5°	1074.9	1210.7	1504.9	1719.9	1804.7
70°	899.5	1069.3	1374.8	1589.7	1674.6
72.5°	735.5	922.2	1239.0	1448.3	1527.5
75°	577.1	786.4	1097.5	1284.2	1323.8
77.5°	430.0	650.6	950.5	1029.7	1001.4
80°	305.5	520.5	741.1	701.5	718.5
82.5°	198.0	396.0	458.3	520.5	537.5
85°	113.1	232.0	282.9	305.5	316.8
87.5°	50.9	84.9	113.1	113.1	107.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)