

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: P391088

Luminaire Tested: **24CZ2-150VHE-HRP-UNV-L950-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: P391088
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-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: 11549.2 lumens
Efficiency: N/A
Efficacy: 110.8 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

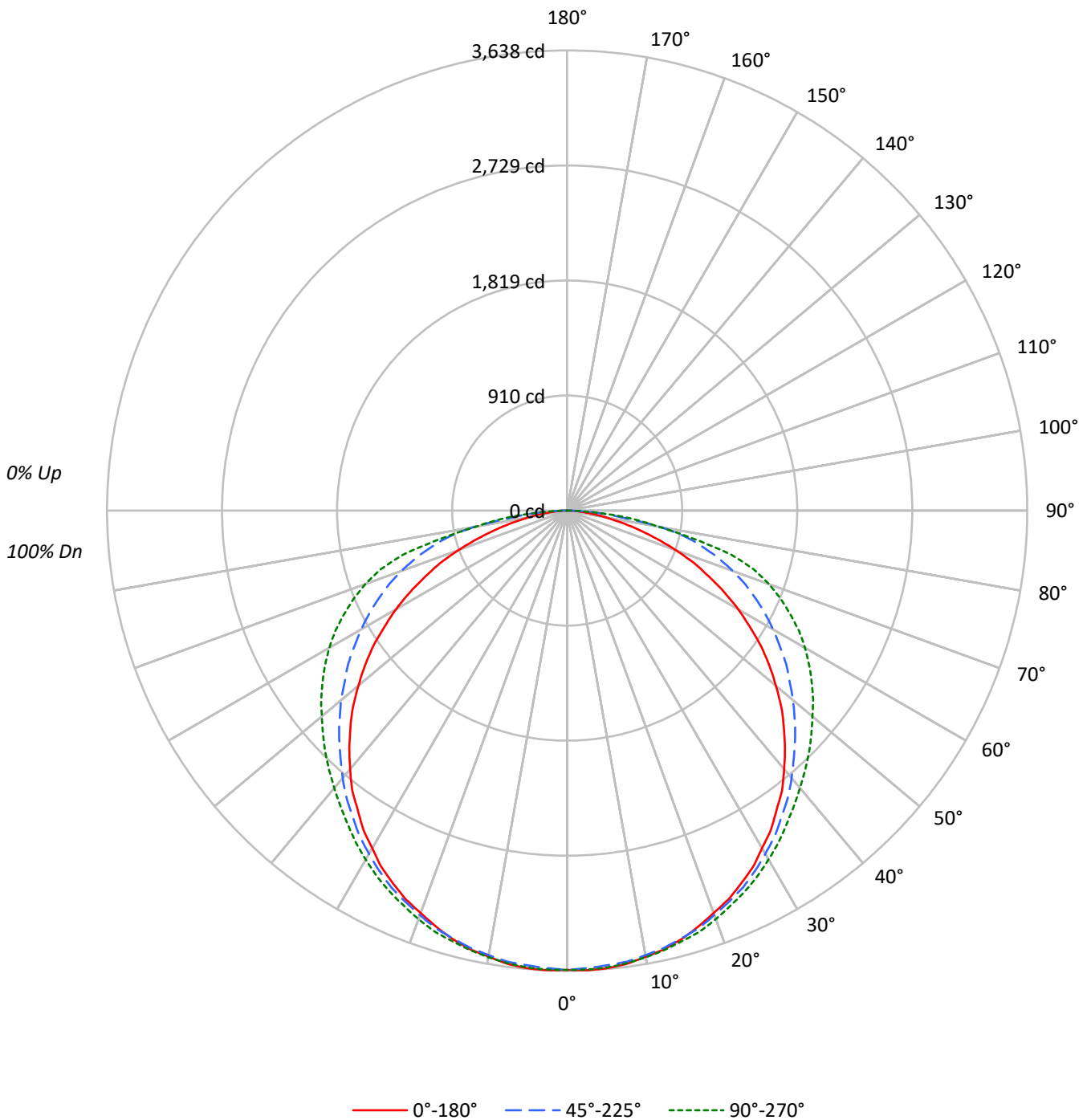
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4887	4887	4887
5°	4905	4874	4898
10°	4892	4876	4899
15°	4884	4875	4908
20°	4848	4872	4921
25°	4831	4882	4933
30°	4788	4868	4948
35°	4742	4855	4968
40°	4689	4850	5031
45°	4611	4851	5145
50°	4509	4880	5300
55°	4394	4959	5537
60°	4208	5056	5842
65°	3940	5234	6201
70°	3583	5476	6670
75°	3038	5777	6969
80°	2397	5814	5637
85°	1769	4421	4952



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.5	3.0
10°-20°	991.5	8.6
20°-30°	1516.2	13.1
30°-40°	1853.6	16.0
40°-50°	1975.6	17.1
50°-60°	1888.9	16.4
60°-70°	1600.1	13.9
70°-80°	1075.4	9.3
80°-90°	303.3	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
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0°-30°	2852.3	24.7
0°-40°	4705.9	40.7
0°-60°	8570.3	74.2
0°-90°	11549.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11549.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3632	3632	3632	3632	3632	
5°	3632	3626	3609	3626	3626	345
15°	3506	3506	3500	3529	3523	988
25°	3254	3265	3288	3317	3323	1500
35°	2887	2910	2956	3013	3025	1809
45°	2423	2463	2549	2658	2704	1869
55°	1873	1942	2114	2280	2360	1668
65°	1237	1363	1644	1862	1948	1228
75°	584	796	1111	1300	1340	626
85°	115	235	286	309	321	142
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3631.9	3631.9	3631.9	3631.9	3631.9
2.5°	3637.6	3637.6	3620.4	3631.9	3631.9
5°	3631.9	3626.2	3609.0	3626.2	3626.2
7.5°	3614.7	3609.0	3597.5	3614.7	3609.0
10°	3580.3	3580.3	3568.9	3586.1	3586.1
12.5°	3551.7	3546.0	3540.2	3563.2	3557.4
15°	3505.9	3505.9	3500.1	3528.8	3523.1
17.5°	3448.6	3454.3	3460.0	3483.0	3488.7
20°	3385.6	3397.0	3402.8	3437.1	3437.1
22.5°	3328.3	3334.0	3345.5	3379.8	3379.8
25°	3253.8	3265.3	3288.2	3316.8	3322.6
27.5°	3179.3	3185.1	3213.7	3253.8	3259.5
30°	3082.0	3099.1	3133.5	3179.3	3185.1
32.5°	2996.0	3013.2	3053.3	3099.1	3110.6
35°	2887.2	2910.1	2955.9	3013.2	3024.7
37.5°	2789.8	2807.0	2864.3	2927.3	2944.5
40°	2669.5	2703.9	2761.2	2835.6	2864.3
42.5°	2549.2	2583.6	2652.3	2749.7	2784.1
45°	2423.2	2463.3	2549.2	2658.0	2703.9
47.5°	2297.1	2343.0	2440.4	2566.4	2617.9
50°	2153.9	2211.2	2331.5	2474.7	2532.0
52.5°	2016.4	2085.2	2216.9	2377.3	2451.8
55°	1873.2	1942.0	2113.8	2280.0	2360.2
57.5°	1712.8	1804.5	1993.5	2182.6	2268.5
60°	1563.9	1649.8	1879.0	2085.2	2171.1
62.5°	1403.5	1518.1	1764.4	1982.1	2068.0
65°	1237.4	1363.4	1644.1	1861.8	1947.7
67.5°	1088.4	1225.9	1523.8	1741.5	1827.4
70°	910.8	1082.7	1392.0	1609.7	1695.6
72.5°	744.7	933.8	1254.5	1466.5	1546.7
75°	584.3	796.3	1111.3	1300.4	1340.5
77.5°	435.4	658.8	962.4	1042.6	1014.0
80°	309.3	527.0	750.4	710.3	727.5
82.5°	200.5	401.0	464.0	527.0	544.2
85°	114.6	234.9	286.4	309.3	320.8
87.5°	51.6	85.9	114.6	114.6	108.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)