

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: P391232

Luminaire Tested: **24CZ2-30VHE-HRP-UNV-L950-CD1-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: P391232
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: 24CZ2-30VHE-HRP-UNV-L950-CD1-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: 2317.4 lumens
Efficiency: N/A
Efficacy: 113.6 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

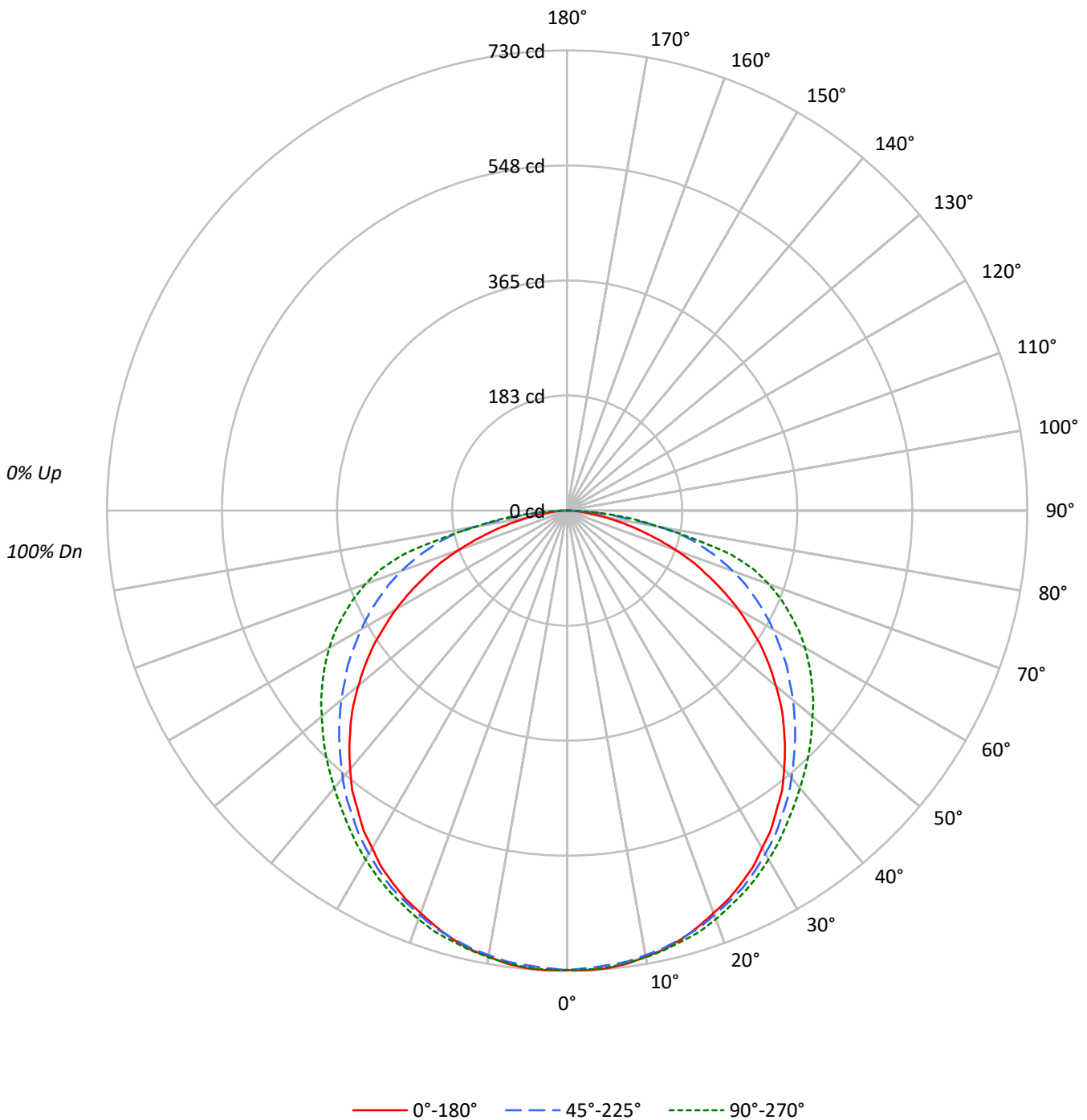
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	981	981	981
5°	984	978	983
10°	982	978	983
15°	980	978	985
20°	973	978	988
25°	969	980	990
30°	961	977	993
35°	952	974	997
40°	941	973	1009
45°	925	973	1032
50°	905	979	1064
55°	882	995	1111
60°	844	1014	1172
65°	791	1050	1244
70°	719	1099	1338
75°	609	1159	1398
80°	481	1167	1131
85°	355	888	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	3.0
10°-20°	199.0	8.6
20°-30°	304.2	13.1
30°-40°	371.9	16.0
40°-50°	396.4	17.1
50°-60°	379.0	16.4
60°-70°	321.1	13.9
70°-80°	215.8	9.3
80°-90°	60.9	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°	572.3	24.7
0°-40°	944.3	40.7
0°-60°	1719.7	74.2
0°-90°	2317.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2317.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	729	729	729	729	729	
5°	729	728	724	728	728	69
15°	704	704	702	708	707	198
25°	653	655	660	666	667	301
35°	579	584	593	605	607	363
45°	486	494	512	533	542	375
55°	376	390	424	458	474	335
65°	248	274	330	374	391	246
75°	117	160	223	261	269	126
85°	23	47	58	62	64	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	728.8	728.8	728.8	728.8	728.8
2.5°	729.9	729.9	726.5	728.8	728.8
5°	728.8	727.6	724.2	727.6	727.6
7.5°	725.3	724.2	721.9	725.3	724.2
10°	718.4	718.4	716.1	719.6	719.6
12.5°	712.7	711.5	710.4	715.0	713.8
15°	703.5	703.5	702.3	708.1	706.9
17.5°	692.0	693.1	694.3	698.9	700.0
20°	679.3	681.6	682.8	689.7	689.7
22.5°	667.8	669.0	671.3	678.2	678.2
25°	652.9	655.2	659.8	665.5	666.7
27.5°	637.9	639.1	644.8	652.9	654.0
30°	618.4	621.9	628.8	637.9	639.1
32.5°	601.2	604.6	612.7	621.9	624.2
35°	579.3	583.9	593.1	604.6	606.9
37.5°	559.8	563.2	574.7	587.4	590.8
40°	535.6	542.5	554.0	569.0	574.7
42.5°	511.5	518.4	532.2	551.7	558.6
45°	486.2	494.3	511.5	533.3	542.5
47.5°	460.9	470.1	489.7	515.0	525.3
50°	432.2	443.7	467.8	496.6	508.1
52.5°	404.6	418.4	444.8	477.0	492.0
55°	375.9	389.7	424.1	457.5	473.6
57.5°	343.7	362.1	400.0	437.9	455.2
60°	313.8	331.0	377.0	418.4	435.6
62.5°	281.6	304.6	354.0	397.7	415.0
65°	248.3	273.6	329.9	373.6	390.8
67.5°	218.4	246.0	305.8	349.4	366.7
70°	182.8	217.2	279.3	323.0	340.2
72.5°	149.4	187.4	251.7	294.3	310.4
75°	117.2	159.8	223.0	260.9	269.0
77.5°	87.4	132.2	193.1	209.2	203.5
80°	62.1	105.8	150.6	142.5	146.0
82.5°	40.2	80.5	93.1	105.8	109.2
85°	23.0	47.1	57.5	62.1	64.4
87.5°	10.3	17.2	23.0	23.0	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)