

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: P390169

Luminaire Tested: **22CZ2-24VHE-HRP-UNV-L935-CD1-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: P390169
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-HRP-UNV-L935-CD1-SWPD1-U
Description: 2x2 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: 1772.6 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

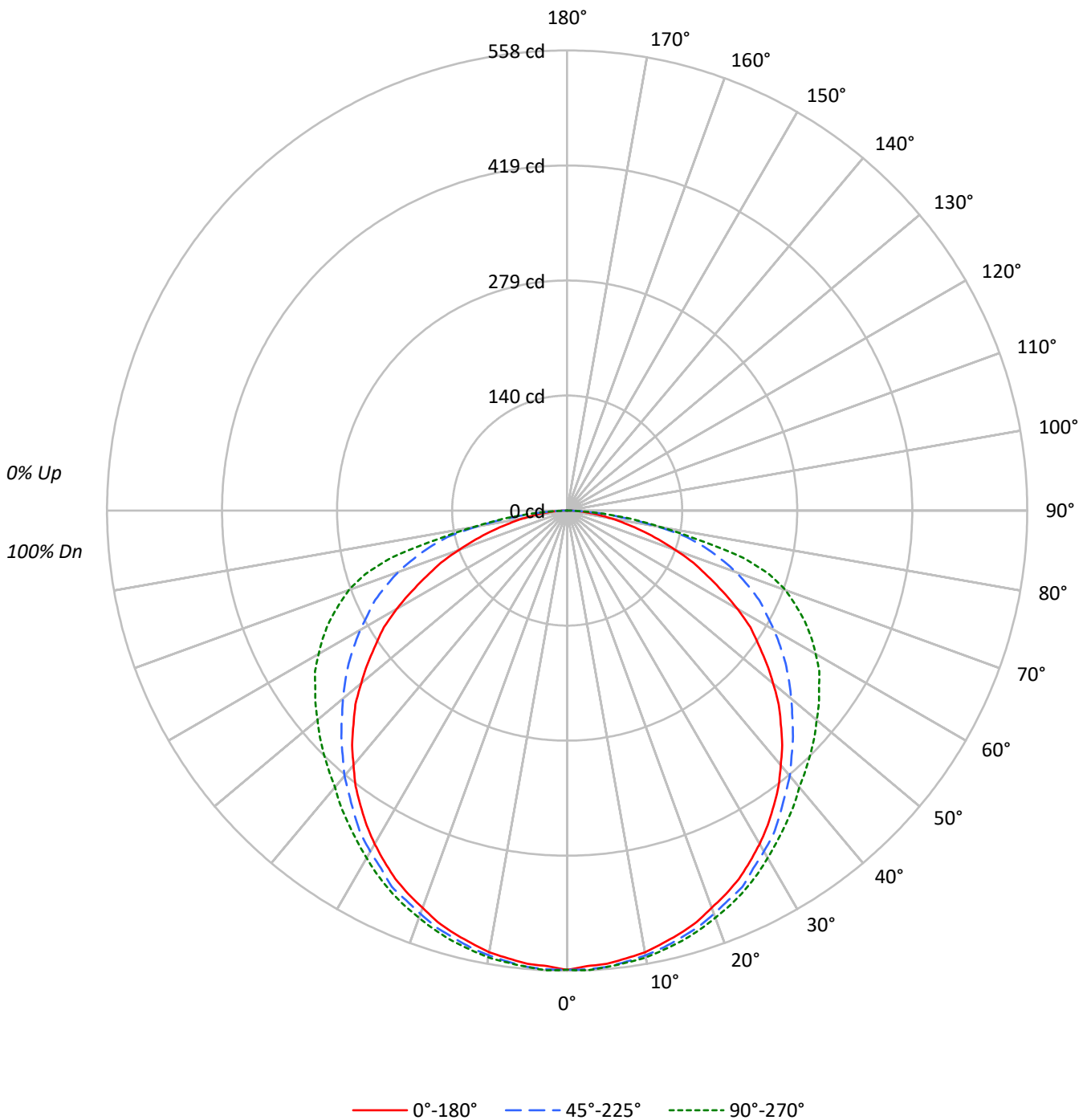
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	1498	1498	1498
5°	1490	1501	1501
10°	1486	1497	1504
15°	1478	1493	1504
20°	1468	1490	1505
25°	1464	1494	1510
30°	1450	1483	1511
35°	1435	1478	1521
40°	1415	1475	1539
45°	1394	1474	1588
50°	1365	1485	1654
55°	1328	1517	1749
60°	1284	1558	1874
65°	1196	1636	2026
70°	1098	1714	2216
75°	963	1803	2292
80°	829	1717	1799
85°	726	1247	1368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	3.0
10°-20°	151.2	8.5
20°-30°	230.7	13.0
30°-40°	281.7	15.9
40°-50°	301.2	17.0
50°-60°	290.7	16.4
60°-70°	250.3	14.1
70°-80°	169.3	9.6
80°-90°	44.7	2.5
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°	434.6	24.5
0°-40°	716.3	40.4
0°-60°	1308.3	73.8
0°-90°	1772.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	557	557	557	557	557	
5°	552	553	556	556	556	52
15°	531	532	536	538	540	150
25°	493	496	503	506	509	227
35°	437	441	450	459	463	273
45°	366	373	387	407	417	283
55°	283	292	323	356	373	254
65°	188	206	257	297	318	187
75°	93	123	173	209	220	99
85°	24	33	40	42	44	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	556.8	556.8	556.8	556.8	556.8
2.5°	552.9	554.2	556.8	556.8	558.1
5°	551.6	552.9	555.5	555.5	555.5
7.5°	547.7	549.0	551.6	552.9	552.9
10°	543.8	545.1	547.7	549.0	550.3
12.5°	537.2	538.5	542.5	545.1	545.1
15°	530.7	532.0	535.9	538.5	539.9
17.5°	522.9	525.5	529.4	532.0	533.3
20°	512.5	515.1	520.3	524.2	525.5
22.5°	503.3	505.9	511.2	515.1	517.7
25°	492.9	495.5	503.3	505.9	508.6
27.5°	479.9	482.5	489.0	494.2	498.1
30°	466.8	469.4	477.3	483.8	486.4
32.5°	452.5	456.4	465.5	470.7	474.7
35°	436.8	440.7	449.9	459.0	462.9
37.5°	421.2	425.1	434.2	446.0	451.2
40°	402.9	408.1	419.9	435.5	438.1
42.5°	386.0	392.5	402.9	421.2	427.7
45°	366.4	372.9	387.3	406.8	417.3
47.5°	348.2	354.7	370.3	393.8	406.8
50°	326.0	335.1	354.7	382.1	395.1
52.5°	305.1	313.0	339.0	369.0	384.7
55°	283.0	292.1	323.4	356.0	372.9
57.5°	263.4	271.2	306.4	342.9	362.5
60°	238.6	249.1	289.5	328.6	348.2
62.5°	212.6	228.2	272.5	313.0	333.8
65°	187.8	206.0	256.9	297.3	318.2
67.5°	165.6	185.2	237.3	280.4	299.9
70°	139.5	164.3	217.8	259.5	281.7
72.5°	116.1	143.4	195.6	237.3	256.9
75°	92.6	122.6	173.4	208.6	220.4
77.5°	71.7	100.4	148.7	159.1	160.4
80°	53.5	79.5	110.8	112.1	116.1
82.5°	36.5	56.1	71.7	78.2	79.5
85°	23.5	32.6	40.4	41.7	44.3
87.5°	10.4	11.7	14.3	13.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)