

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: P390176

Luminaire Tested: **22CZ2-24VHE-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: P390176
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-L950-CD1-U
Description: 2x2 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: 1924.9 lumens
Efficiency: N/A
Efficacy: 110.0 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

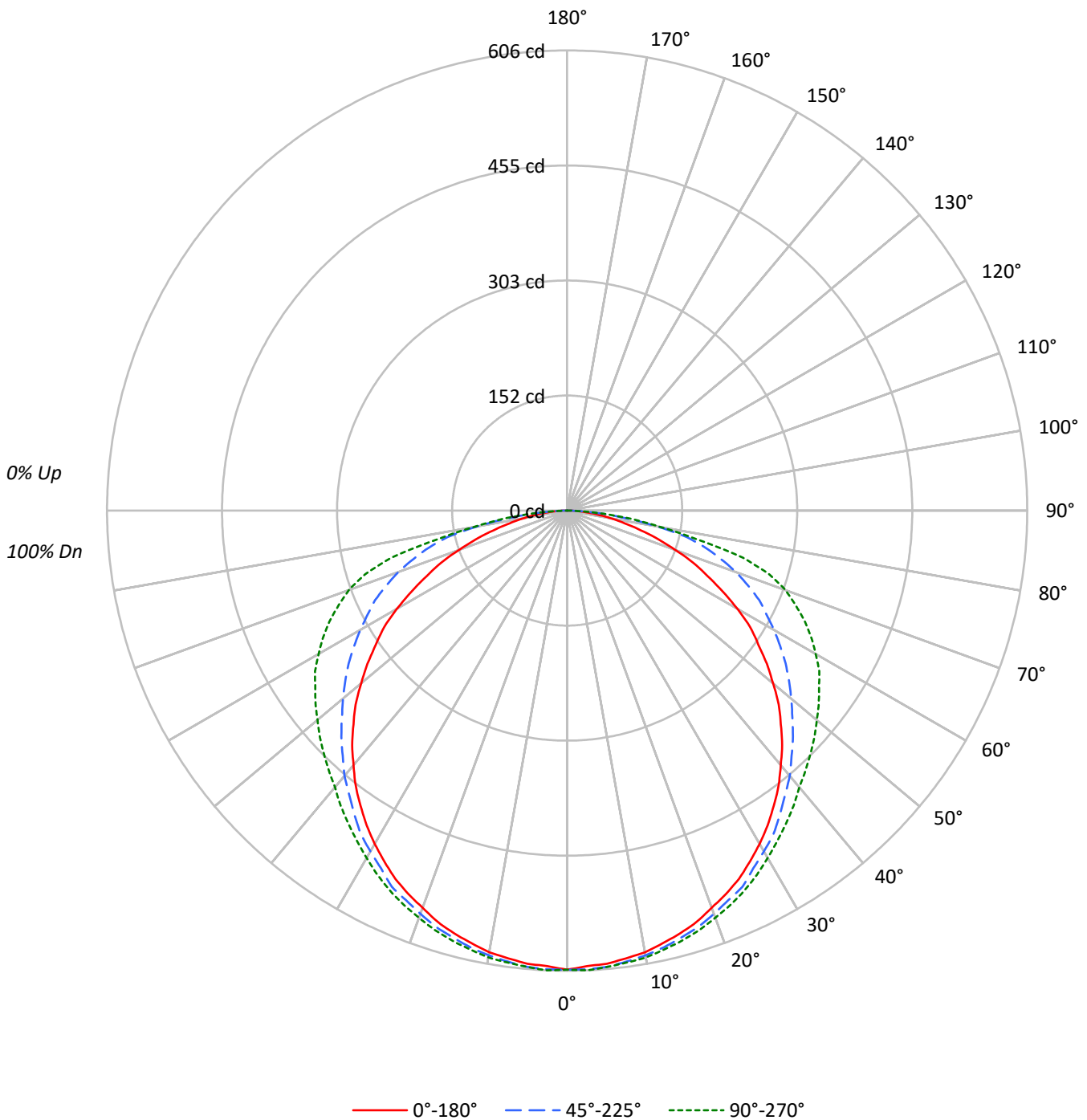
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1627	1627	1627
5°	1618	1629	1629
10°	1614	1625	1633
15°	1606	1621	1633
20°	1594	1618	1634
25°	1589	1623	1640
30°	1575	1611	1641
35°	1558	1605	1651
40°	1537	1602	1671
45°	1514	1601	1724
50°	1482	1613	1796
55°	1442	1648	1900
60°	1394	1692	2035
65°	1298	1777	2200
70°	1192	1861	2407
75°	1045	1958	2488
80°	900	1866	1953
85°	787	1355	1485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.2	3.0
10°-20°	164.2	8.5
20°-30°	250.5	13.0
30°-40°	305.9	15.9
40°-50°	327.1	17.0
50°-60°	315.7	16.4
60°-70°	271.8	14.1
70°-80°	183.9	9.6
80°-90°	48.5	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°	472.0	24.5
0°-40°	777.9	40.4
0°-60°	1420.7	73.8
0°-90°	1924.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1924.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	605	605	605	605	605	
5°	599	600	603	603	603	57
15°	576	578	582	585	586	163
25°	535	538	547	549	552	246
35°	474	479	488	498	503	297
45°	398	405	421	442	453	307
55°	307	317	351	387	405	275
65°	204	224	279	323	346	203
75°	100	133	188	227	239	108
85°	26	35	44	45	48	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	604.6	604.6	604.6	604.6	604.6
2.5°	600.4	601.8	604.6	604.6	606.1
5°	599.0	600.4	603.2	603.2	603.2
7.5°	594.7	596.1	599.0	600.4	600.4
10°	590.5	591.9	594.7	596.1	597.6
12.5°	583.4	584.8	589.1	591.9	591.9
15°	576.3	577.7	582.0	584.8	586.2
17.5°	567.8	570.7	574.9	577.7	579.2
20°	556.5	559.3	565.0	569.2	570.7
22.5°	546.6	549.4	555.1	559.3	562.2
25°	535.3	538.1	546.6	549.4	552.3
27.5°	521.1	523.9	531.0	536.7	540.9
30°	506.9	509.8	518.3	525.3	528.2
32.5°	491.4	495.6	505.5	511.2	515.4
35°	474.4	478.6	488.5	498.4	502.7
37.5°	457.4	461.6	471.5	484.3	489.9
40°	437.6	443.2	456.0	473.0	475.8
42.5°	419.1	426.2	437.6	457.4	464.5
45°	397.9	405.0	420.6	441.8	453.1
47.5°	378.1	385.2	402.2	427.6	441.8
50°	354.0	363.9	385.2	414.9	429.1
52.5°	331.4	339.8	368.2	400.7	417.7
55°	307.3	317.2	351.2	386.6	405.0
57.5°	286.0	294.5	332.8	372.4	393.7
60°	259.1	270.5	314.4	356.8	378.1
62.5°	230.8	247.8	296.0	339.8	362.5
65°	203.9	223.7	279.0	322.9	345.5
67.5°	179.8	201.1	257.7	304.4	325.7
70°	151.5	178.4	236.5	281.8	305.9
72.5°	126.0	155.8	212.4	257.7	279.0
75°	100.5	133.1	188.3	226.6	239.3
77.5°	77.9	109.0	161.4	172.8	174.2
80°	58.1	86.4	120.4	121.8	126.0
82.5°	39.6	60.9	77.9	85.0	86.4
85°	25.5	35.4	43.9	45.3	48.1
87.5°	11.3	12.7	15.6	14.2	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)