

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: P387748

Luminaire Tested: **22CZ2-24HE-SQR-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: P387748
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-SQR-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1937.4 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

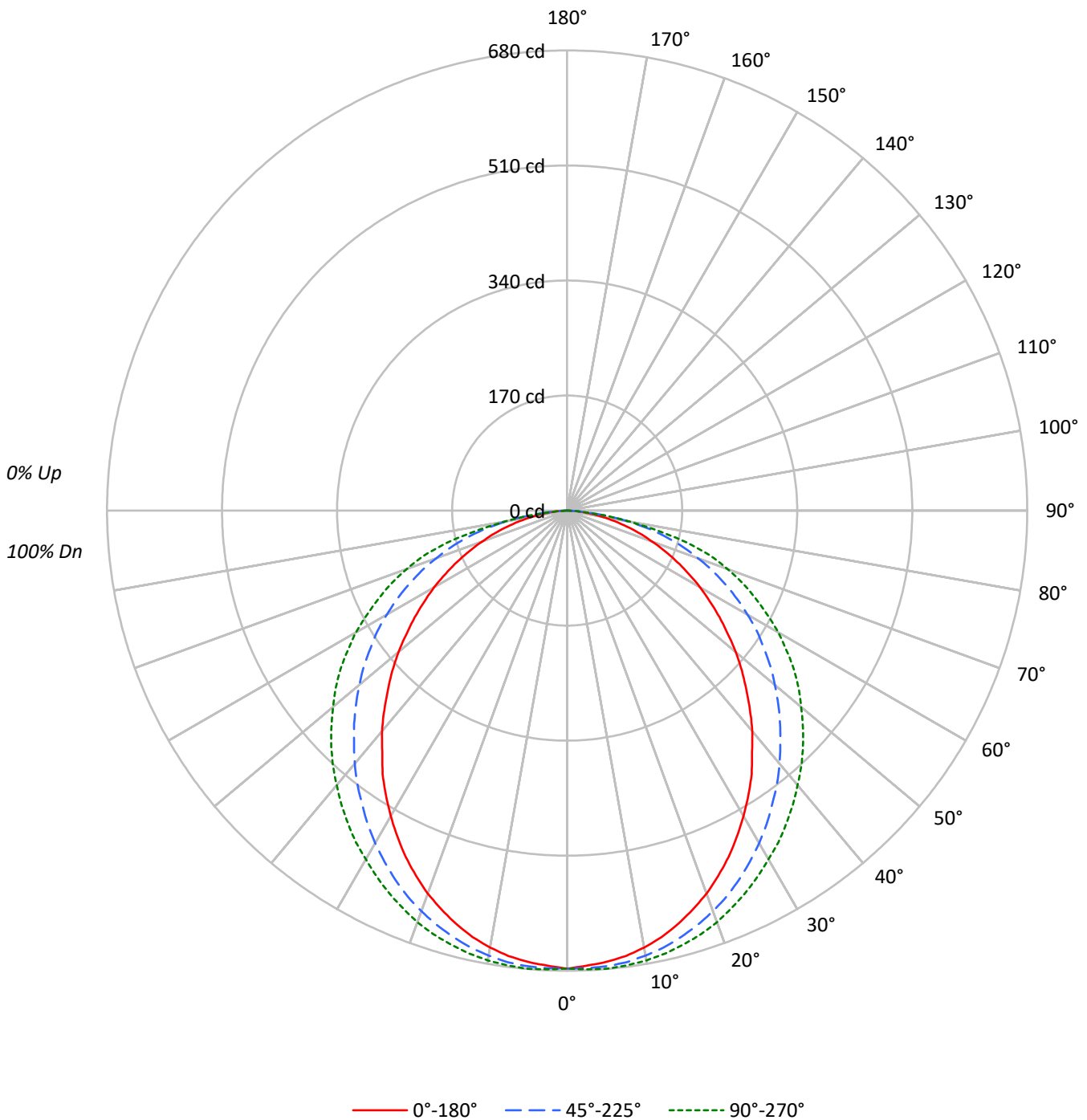
Input Watts (W): 19.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1821	1821	1821
5°	1808	1826	1836
10°	1791	1824	1844
15°	1762	1816	1850
20°	1725	1804	1854
25°	1676	1786	1851
30°	1620	1763	1849
35°	1562	1737	1855
40°	1495	1715	1861
45°	1424	1694	1876
50°	1363	1678	1890
55°	1290	1665	1920
60°	1222	1658	1940
65°	1142	1645	1955
70°	1049	1621	1983
75°	946	1577	1912
80°	812	1396	1440
85°	651	824	651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	3.3
10°-20°	183.4	9.5
20°-30°	275.5	14.2
30°-40°	328.6	17.0
40°-50°	339.7	17.5
50°-60°	312.3	16.1
60°-70°	248.7	12.8
70°-80°	151.9	7.8
80°-90°	33.0	1.7
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°	523.1	27.0
0°-40°	851.7	44.0
0°-60°	1503.8	77.6
0°-90°	1937.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	677	677	677	677	677	
5°	669	671	676	679	680	63
15°	633	640	652	661	664	178
25°	565	578	601	618	623	260
35°	475	496	529	556	565	297
45°	374	401	445	481	493	289
55°	275	305	355	395	409	246
65°	179	210	258	294	307	178
75°	91	118	152	178	184	97
85°	21	26	27	23	21	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.8	676.8	676.8	676.8	676.8
2.5°	673.1	674.0	676.8	678.6	678.6
5°	669.4	671.3	675.9	678.6	679.5
7.5°	663.9	666.7	673.1	676.8	677.7
10°	655.6	659.3	667.6	673.1	674.9
12.5°	645.5	651.0	661.1	668.5	670.3
15°	632.6	640.0	652.0	661.1	663.9
17.5°	617.9	627.1	641.8	652.9	656.6
20°	602.3	611.5	629.9	642.8	647.4
22.5°	583.9	595.9	617.0	631.7	635.4
25°	564.6	578.4	601.4	617.9	623.4
27.5°	543.4	560.0	584.8	605.1	609.7
30°	521.4	538.8	567.4	589.4	594.9
32.5°	498.4	518.6	549.0	573.8	581.1
35°	475.4	495.6	528.7	556.3	564.6
37.5°	448.7	472.6	509.4	537.9	548.0
40°	425.7	448.7	488.3	519.5	529.7
42.5°	400.0	424.8	466.2	500.2	512.2
45°	374.3	400.9	445.1	480.9	492.9
47.5°	350.3	377.0	423.0	460.7	472.6
50°	325.5	353.1	400.9	439.5	451.5
52.5°	298.9	329.2	378.8	417.5	431.3
55°	274.9	305.3	354.9	395.4	409.2
57.5°	250.1	281.4	332.9	371.5	384.4
60°	227.1	257.5	308.0	345.7	360.5
62.5°	202.3	233.6	283.2	320.0	333.8
65°	179.3	209.7	258.4	294.3	307.1
67.5°	156.3	186.7	232.6	266.7	281.4
70°	133.3	163.7	206.0	239.1	252.0
72.5°	113.1	139.8	180.2	210.6	222.5
75°	91.0	117.7	151.7	178.4	183.9
77.5°	70.8	94.7	123.2	135.2	137.0
80°	52.4	70.8	90.1	92.9	92.9
82.5°	34.9	48.7	56.1	57.0	56.1
85°	21.1	25.7	26.7	23.0	21.1
87.5°	7.4	7.4	4.6	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)