

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: P387771

Luminaire Tested: **22CZ2-24VHE-SQR-UNV-L935-CD1-SDWPD1-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: P387771
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: 22CZ2-24VHE-SQR-UNV-L935-CD1-SDWPD1-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: 1981.4 lumens
Efficiency: N/A
Efficacy: 113.2 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

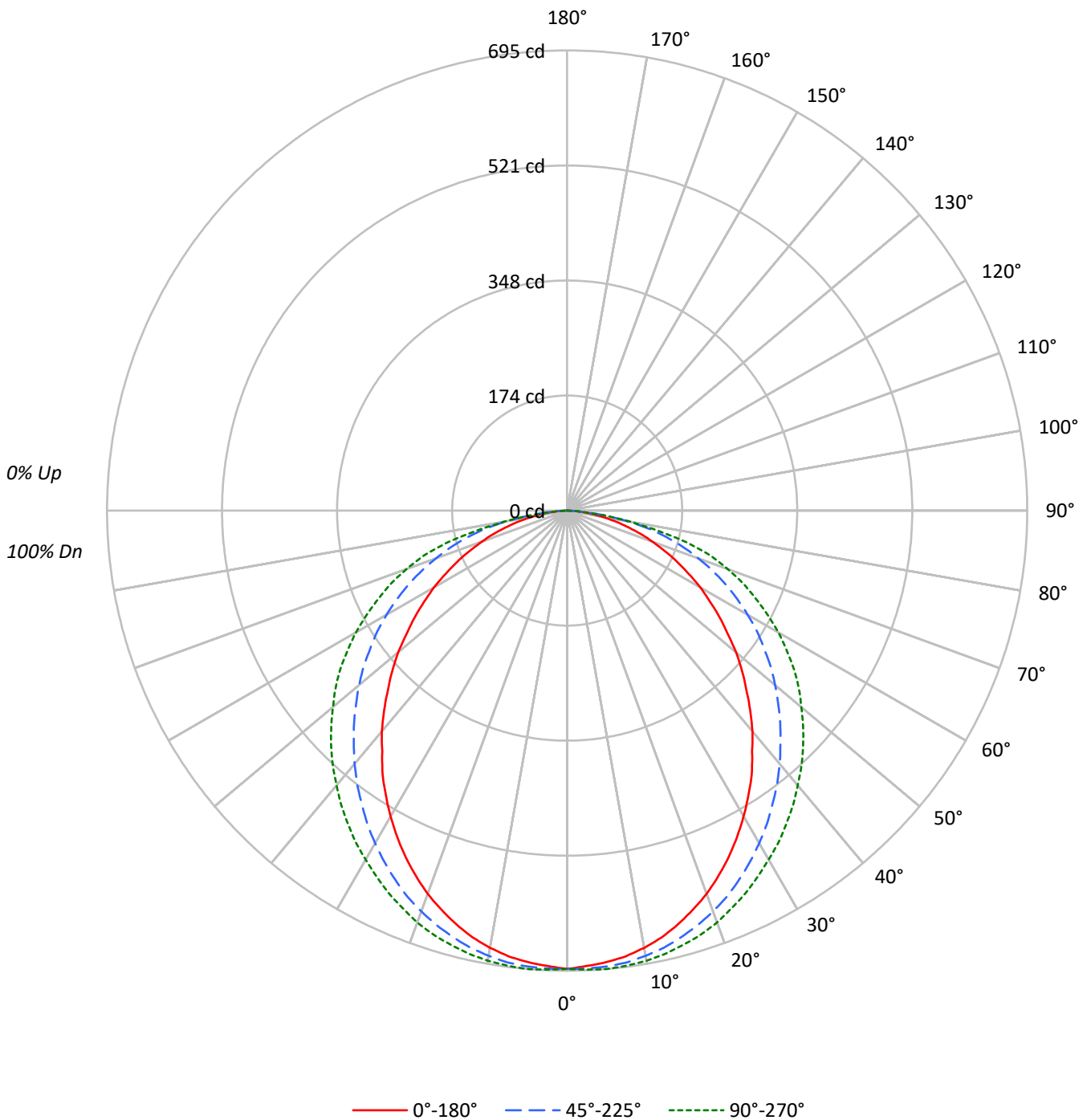
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1863	1863	1863
5°	1849	1867	1877
10°	1832	1865	1886
15°	1802	1858	1892
20°	1764	1845	1896
25°	1714	1826	1893
30°	1657	1803	1891
35°	1597	1776	1897
40°	1529	1754	1903
45°	1457	1732	1918
50°	1394	1716	1933
55°	1319	1703	1963
60°	1250	1695	1984
65°	1168	1683	2000
70°	1073	1658	2028
75°	968	1614	1956
80°	831	1429	1472
85°	667	843	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	3.3
10°-20°	187.6	9.5
20°-30°	281.8	14.2
30°-40°	336.1	17.0
40°-50°	347.5	17.5
50°-60°	319.4	16.1
60°-70°	254.3	12.8
70°-80°	155.4	7.8
80°-90°	33.8	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°	535.0	27.0
0°-40°	871.1	44.0
0°-60°	1538.0	77.6
0°-90°	1981.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1981.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	685	686	691	694	695	65
15°	647	654	667	676	679	182
25°	577	592	615	632	638	266
35°	486	507	541	569	577	303
45°	383	410	455	492	504	296
55°	281	312	363	404	418	252
65°	183	214	264	301	314	182
75°	93	120	155	182	188	99
85°	22	26	27	24	22	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	692.2	692.2	692.2	692.2	692.2
2.5°	688.4	689.3	692.2	694.0	694.0
5°	684.6	686.5	691.2	694.0	695.0
7.5°	679.0	681.8	688.4	692.2	693.1
10°	670.5	674.3	682.7	688.4	690.3
12.5°	660.2	665.8	676.2	683.7	685.6
15°	647.0	654.5	666.8	676.2	679.0
17.5°	632.0	641.4	656.4	667.7	671.5
20°	616.0	625.4	644.2	657.4	662.1
22.5°	597.2	609.4	631.0	646.1	649.8
25°	577.4	591.5	615.0	632.0	637.6
27.5°	555.8	572.7	598.1	618.8	623.5
30°	533.2	551.1	580.2	602.8	608.5
32.5°	509.7	530.4	561.4	586.8	594.3
35°	486.2	506.9	540.7	569.0	577.4
37.5°	458.9	483.4	521.0	550.1	560.5
40°	435.4	458.9	499.4	531.3	541.7
42.5°	409.1	434.5	476.8	511.6	523.8
45°	382.8	410.0	455.2	491.8	504.1
47.5°	358.3	385.6	432.6	471.2	483.4
50°	332.9	361.1	410.0	449.5	461.7
52.5°	305.6	336.7	387.5	427.0	441.1
55°	281.2	312.2	363.0	404.4	418.5
57.5°	255.8	287.8	340.4	379.9	393.1
60°	232.3	263.3	315.0	353.6	368.6
62.5°	206.9	238.9	289.7	327.3	341.4
65°	183.4	214.4	264.3	300.9	314.1
67.5°	159.9	190.9	237.9	272.7	287.8
70°	136.4	167.4	210.7	244.5	257.7
72.5°	115.7	142.9	184.3	215.4	227.6
75°	93.1	120.4	155.2	182.4	188.1
77.5°	72.4	96.9	126.0	138.2	140.1
80°	53.6	72.4	92.2	95.0	95.0
82.5°	35.7	49.8	57.4	58.3	57.4
85°	21.6	26.3	27.3	23.5	21.6
87.5°	7.5	7.5	4.7	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)