

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: P387768

Luminaire Tested: **22CZ2-24VHE-SQR-UNV-L930-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: P387768
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-L930-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1933.6 lumens
Efficiency: N/A
Efficacy: 110.5 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

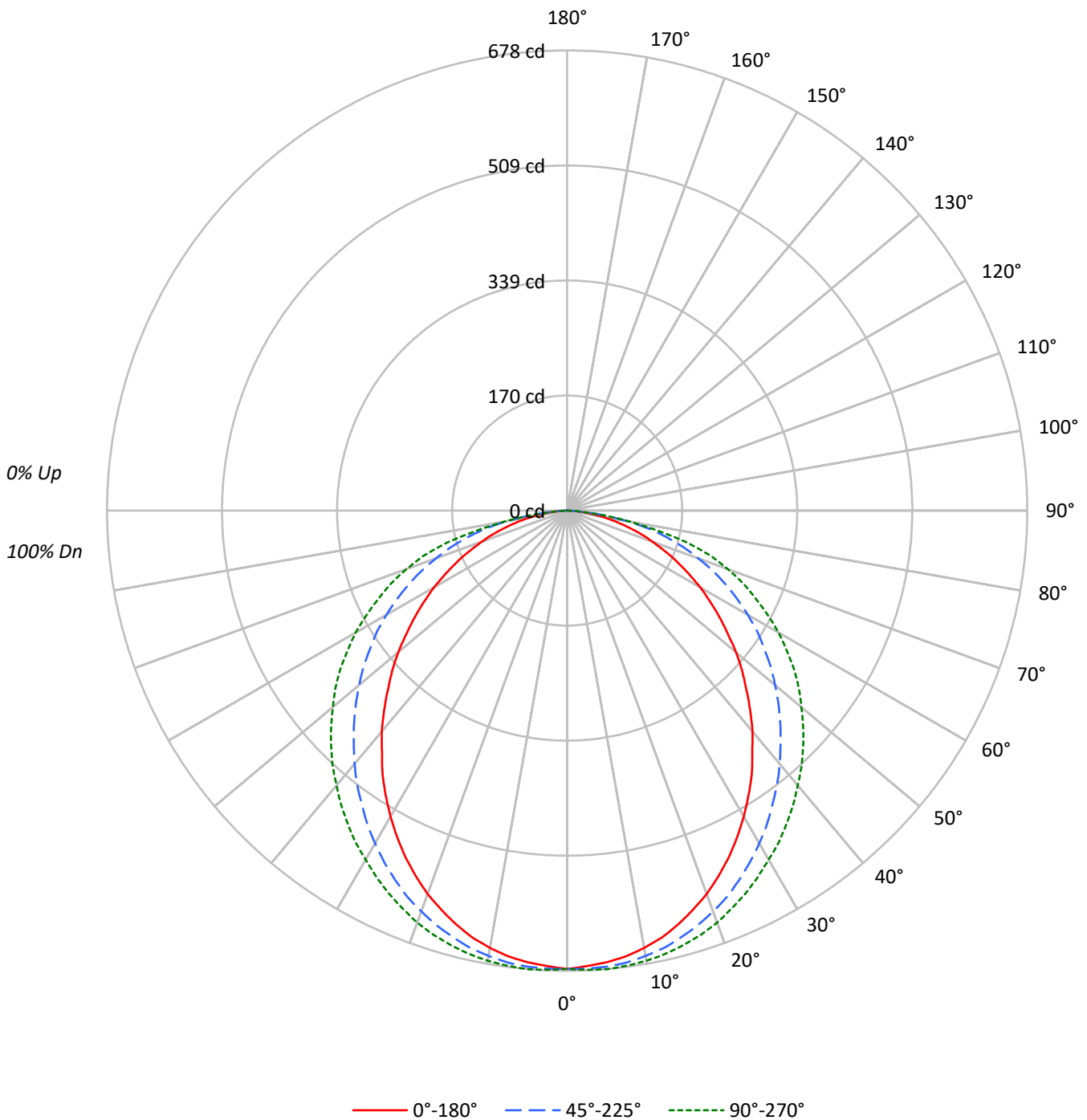
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1818	1818	1818
5°	1805	1822	1832
10°	1788	1821	1841
15°	1759	1813	1846
20°	1721	1800	1850
25°	1673	1782	1847
30°	1617	1759	1845
35°	1559	1734	1851
40°	1493	1712	1857
45°	1421	1690	1872
50°	1360	1675	1886
55°	1287	1662	1916
60°	1220	1654	1936
65°	1140	1642	1952
70°	1047	1618	1979
75°	945	1574	1908
80°	810	1393	1437
85°	651	821	651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	3.3
10°-20°	183.1	9.5
20°-30°	275.0	14.2
30°-40°	328.0	17.0
40°-50°	339.1	17.5
50°-60°	311.7	16.1
60°-70°	248.2	12.8
70°-80°	151.6	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°	522.1	27.0
0°-40°	850.1	44.0
0°-60°	1500.9	77.6
0°-90°	1933.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1933.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	668	670	674	677	678	63
15°	631	639	651	660	663	178
25°	564	577	600	617	622	259
35°	474	495	528	555	564	296
45°	374	400	444	480	492	289
55°	274	305	354	395	408	245
65°	179	209	258	294	306	177
75°	91	118	151	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°	675.5	675.5	675.5	675.5	675.5
2.5°	671.8	672.7	675.5	677.3	677.3
5°	668.1	669.9	674.5	677.3	678.2
7.5°	662.6	665.4	671.8	675.5	676.4
10°	654.3	658.0	666.3	671.8	673.6
12.5°	644.3	649.8	659.9	667.2	669.0
15°	631.4	638.7	650.7	659.9	662.6
17.5°	616.7	625.9	640.6	651.6	655.3
20°	601.1	610.3	628.6	641.5	646.1
22.5°	582.8	594.7	615.8	630.5	634.2
25°	563.5	577.3	600.2	616.7	622.2
27.5°	542.4	558.9	583.7	603.9	608.5
30°	520.4	537.8	566.2	588.3	593.8
32.5°	497.4	517.6	547.9	572.7	580.0
35°	474.5	494.7	527.7	555.2	563.5
37.5°	447.9	471.7	508.4	536.9	547.0
40°	424.9	447.9	487.3	518.5	528.6
42.5°	399.2	424.0	465.3	499.2	511.2
45°	373.5	400.1	444.2	480.0	491.9
47.5°	349.7	376.3	422.2	459.8	471.7
50°	324.9	352.4	400.1	438.7	450.6
52.5°	298.3	328.5	378.1	416.7	430.4
55°	274.4	304.7	354.2	394.6	408.4
57.5°	249.6	280.8	332.2	370.8	383.6
60°	226.7	257.0	307.4	345.1	359.8
62.5°	201.9	233.1	282.7	319.4	333.1
65°	179.0	209.2	257.9	293.7	306.5
67.5°	156.0	186.3	232.2	266.1	280.8
70°	133.1	163.4	205.6	238.6	251.5
72.5°	112.9	139.5	179.9	210.2	222.1
75°	90.9	117.5	151.4	178.0	183.5
77.5°	70.7	94.5	123.0	134.9	136.7
80°	52.3	70.7	89.9	92.7	92.7
82.5°	34.9	48.6	56.0	56.9	56.0
85°	21.1	25.7	26.6	22.9	21.1
87.5°	7.3	7.3	4.6	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)