

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: P387776

Luminaire Tested: **22CZ2-24VHE-SQR-UNV-L940-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: P387776
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-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2051.8 lumens
Efficiency: N/A
Efficacy: 117.2 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

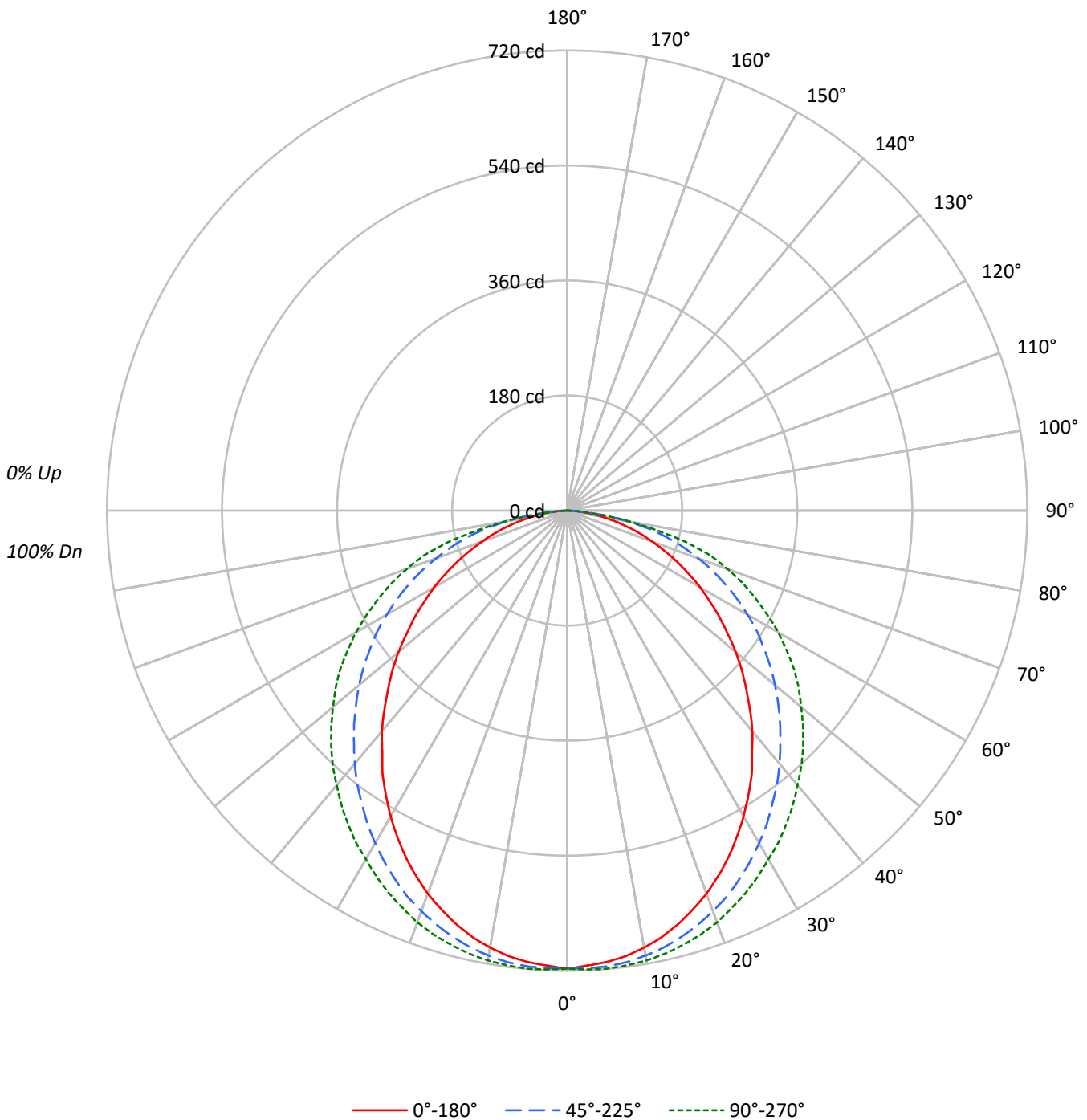
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1929	1929	1929
5°	1915	1934	1944
10°	1897	1932	1953
15°	1867	1923	1959
20°	1827	1910	1963
25°	1775	1891	1961
30°	1716	1867	1958
35°	1654	1840	1964
40°	1584	1816	1970
45°	1509	1794	1987
50°	1443	1778	2002
55°	1366	1764	2033
60°	1294	1756	2054
65°	1209	1742	2071
70°	1111	1716	2099
75°	1002	1671	2025
80°	860	1478	1525
85°	692	871	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	3.3
10°-20°	194.3	9.5
20°-30°	291.8	14.2
30°-40°	348.0	17.0
40°-50°	359.8	17.5
50°-60°	330.8	16.1
60°-70°	263.3	12.8
70°-80°	160.9	7.8
80°-90°	35.0	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°	554.0	27.0
0°-40°	902.0	44.0
0°-60°	1592.6	77.6
0°-90°	2051.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2051.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	709	711	716	719	720	67
15°	670	678	690	700	703	189
25°	598	612	637	654	660	275
35°	504	525	560	589	598	314
45°	396	425	471	509	522	306
55°	291	323	376	419	433	260
65°	190	222	274	312	325	188
75°	96	125	161	189	195	103
85°	22	27	28	24	22	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	716.7	716.7	716.7	716.7	716.7
2.5°	712.8	713.8	716.7	718.7	718.7
5°	709.0	710.9	715.8	718.7	719.7
7.5°	703.1	706.0	712.8	716.7	717.7
10°	694.3	698.2	707.0	712.8	714.8
12.5°	683.6	689.5	700.2	708.0	709.9
15°	670.0	677.8	690.4	700.2	703.1
17.5°	654.4	664.2	679.7	691.4	695.3
20°	637.9	647.6	667.1	680.7	685.6
22.5°	618.4	631.0	653.4	669.0	672.9
25°	597.9	612.5	636.9	654.4	660.3
27.5°	575.5	593.1	619.4	640.8	645.7
30°	552.2	570.7	600.9	624.2	630.1
32.5°	527.8	549.2	581.4	607.7	615.5
35°	503.5	524.9	560.0	589.2	597.9
37.5°	475.2	500.6	539.5	569.7	580.4
40°	450.9	475.2	517.1	550.2	560.9
42.5°	423.6	449.9	493.7	529.8	542.4
45°	396.4	424.6	471.3	509.3	522.0
47.5°	371.0	399.3	448.0	487.9	500.6
50°	344.7	374.0	424.6	465.5	478.2
52.5°	316.5	348.6	401.2	442.1	456.7
55°	291.2	323.3	375.9	418.7	433.4
57.5°	264.9	298.0	352.5	393.4	407.1
60°	240.5	272.7	326.2	366.2	381.7
62.5°	214.2	247.4	299.9	338.9	353.5
65°	189.9	222.0	273.6	311.6	325.3
67.5°	165.6	197.7	246.4	282.4	298.0
70°	141.2	173.3	218.1	253.2	266.8
72.5°	119.8	148.0	190.9	223.0	235.7
75°	96.4	124.7	160.7	188.9	194.8
77.5°	75.0	100.3	130.5	143.2	145.1
80°	55.5	75.0	95.4	98.4	98.4
82.5°	37.0	51.6	59.4	60.4	59.4
85°	22.4	27.3	28.2	24.3	22.4
87.5°	7.8	7.8	4.9	2.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)