

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: P389160

Luminaire Tested: **22CZ2-24VHE-S-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: P389160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-S-UNV-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2167.8 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

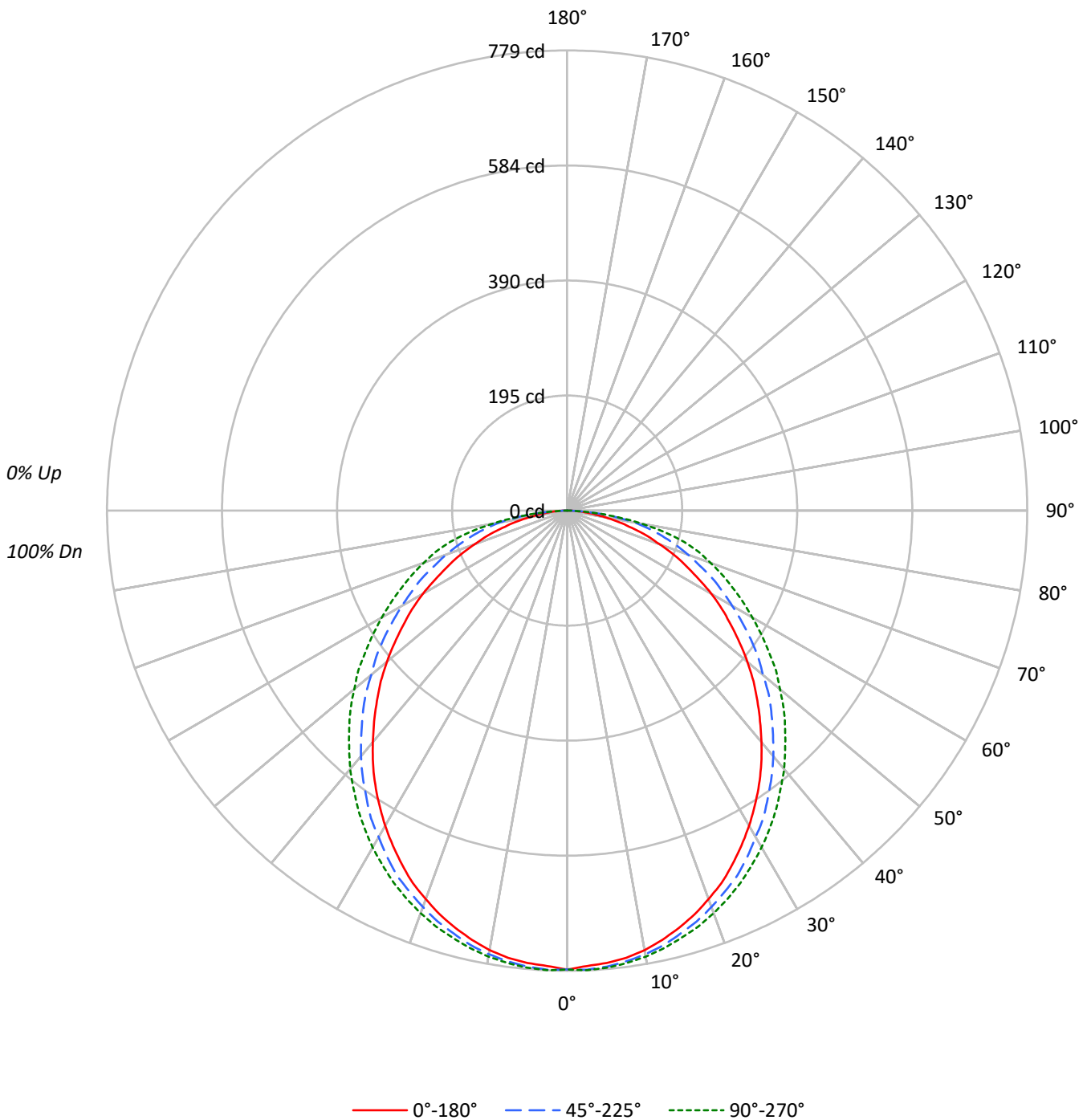
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2090	2090	2090
5°	2076	2093	2098
10°	2064	2084	2095
15°	2037	2065	2085
20°	2004	2045	2077
25°	1964	2024	2063
30°	1914	1983	2046
35°	1861	1947	2027
40°	1798	1908	2008
45°	1732	1863	1986
50°	1668	1812	1969
55°	1590	1780	1955
60°	1519	1737	1949
65°	1417	1726	1971
70°	1305	1711	2029
75°	1178	1735	2135
80°	1018	1787	2007
85°	843	1497	1497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.4
10°-20°	209.1	9.6
20°-30°	312.8	14.4
30°-40°	370.4	17.1
40°-50°	377.5	17.4
50°-60°	338.4	15.6
60°-70°	264.9	12.2
70°-80°	170.8	7.9
80°-90°	50.5	2.3
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°	595.3	27.5
0°-40°	965.7	44.5
0°-60°	1681.6	77.6
0°-90°	2167.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2167.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	769	771	775	776	777	73
15°	731	735	741	748	748	206
25°	662	668	682	691	695	304
35°	566	574	593	611	617	354
45°	455	465	490	515	522	352
55°	339	350	379	406	417	304
65°	222	236	271	297	310	221
75°	113	130	167	195	205	121
85°	27	37	48	48	48	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.8	776.8	776.8	776.8	776.8
2.5°	771.7	773.8	777.8	778.8	778.8
5°	768.7	770.7	774.8	775.8	776.8
7.5°	763.6	764.7	769.7	771.7	772.7
10°	755.5	757.6	762.6	765.7	766.7
12.5°	744.4	747.5	753.5	757.6	758.6
15°	731.3	735.3	741.4	747.5	748.5
17.5°	717.1	721.2	729.3	736.3	738.4
20°	699.9	705.0	714.1	722.2	725.2
22.5°	682.7	686.8	697.9	708.0	711.0
25°	661.5	667.6	681.7	690.8	694.9
27.5°	639.2	646.3	660.5	672.6	676.7
30°	616.0	623.1	638.2	653.4	658.5
32.5°	591.7	599.8	618.0	633.2	638.2
35°	566.4	573.5	592.7	610.9	617.0
37.5°	540.1	546.2	568.4	587.6	593.7
40°	511.8	519.9	543.1	565.4	571.5
42.5°	483.5	492.6	515.8	540.1	546.2
45°	455.2	465.3	489.5	514.8	521.9
47.5°	427.8	435.9	463.2	487.5	497.6
50°	398.5	406.6	432.9	460.2	470.3
52.5°	368.2	379.3	407.6	433.9	446.0
55°	338.8	350.0	379.3	405.6	416.7
57.5°	311.5	320.6	351.0	378.3	389.4
60°	282.2	290.3	322.7	352.0	362.1
62.5°	250.8	263.0	296.4	323.7	335.8
65°	222.5	235.7	271.1	297.4	309.5
67.5°	196.2	208.4	242.7	271.1	284.2
70°	165.9	182.1	217.5	245.8	257.9
72.5°	141.6	155.8	192.2	220.5	233.6
75°	113.3	130.5	166.9	195.2	205.3
77.5°	90.0	107.2	141.6	163.9	168.9
80°	65.7	82.9	115.3	126.4	129.5
82.5°	44.5	60.7	82.9	86.0	87.0
85°	27.3	37.4	48.5	48.5	48.5
87.5°	13.1	15.2	17.2	16.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)