

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: P277447

Luminaire Tested: **22CZ2-24HE-S-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-S-UNV-L92765-W2A1-U-4500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2170.0 lumens
Efficiency: N/A
Efficacy: 120.9 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

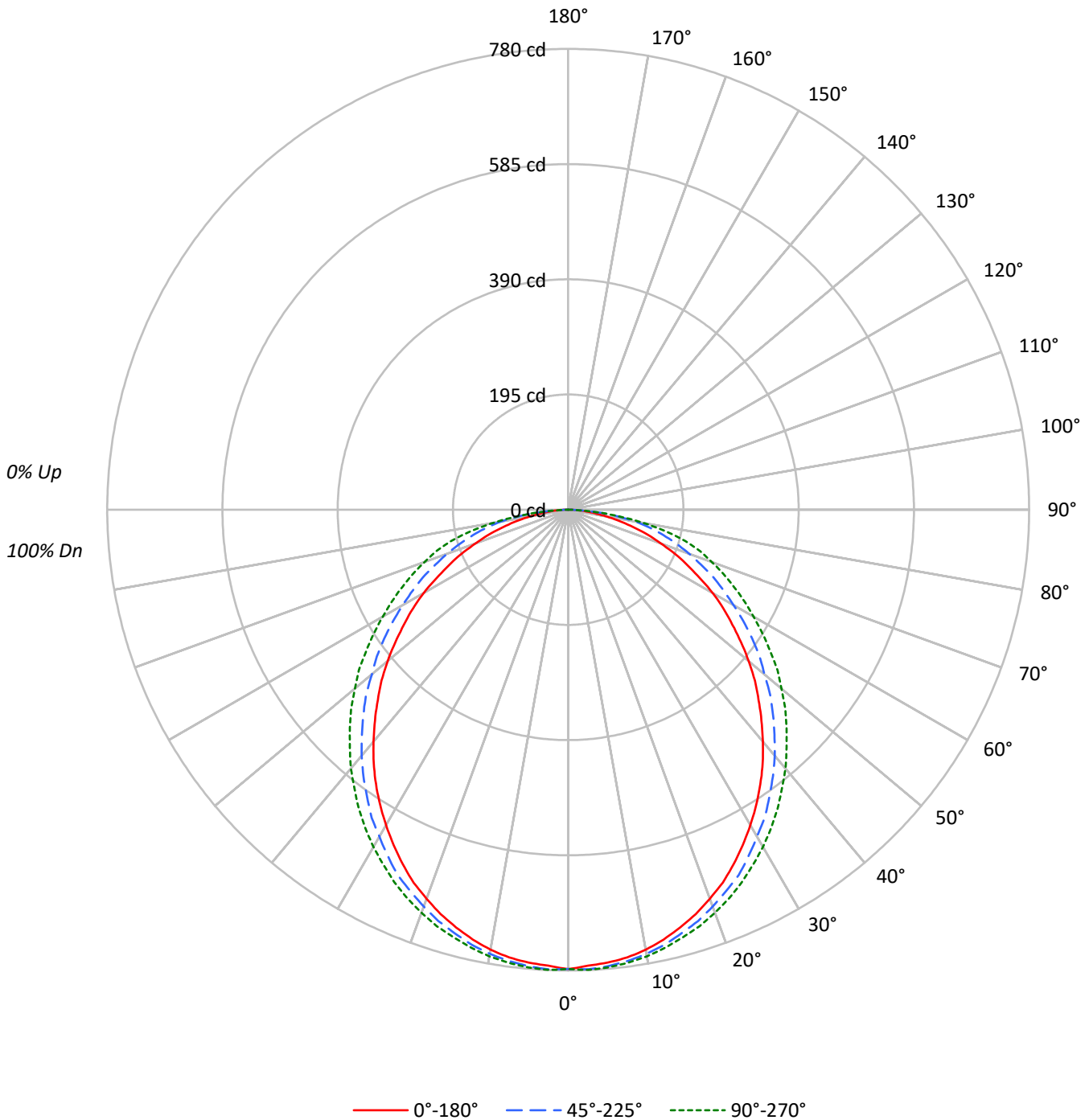
Input Watts (W): 17.949
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2093	2093	2093
5°	2079	2095	2100
10°	2067	2086	2097
15°	2039	2067	2087
20°	2006	2047	2079
25°	1966	2026	2065
30°	1916	1985	2048
35°	1863	1949	2029
40°	1800	1910	2009
45°	1734	1865	1988
50°	1670	1814	1971
55°	1591	1781	1957
60°	1520	1738	1951
65°	1418	1727	1973
70°	1306	1713	2031
75°	1179	1737	2137
80°	1020	1788	2008
85°	843	1501	1501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.4
10°-20°	209.3	9.6
20°-30°	313.1	14.4
30°-40°	370.8	17.1
40°-50°	377.9	17.4
50°-60°	338.7	15.6
60°-70°	265.2	12.2
70°-80°	171.0	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°	595.9	27.5
0°-40°	966.7	44.5
0°-60°	1683.3	77.6
0°-90°	2170.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2170.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	770	772	776	777	778	73
15°	732	736	742	748	749	206
25°	662	668	682	692	696	305
35°	567	574	593	612	618	354
45°	456	466	490	515	522	352
55°	339	350	380	406	417	304
65°	223	236	271	298	310	221
75°	113	131	167	195	206	122
85°	27	38	49	49	49	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	777.6	777.6	777.6	777.6	777.6
2.5°	772.5	774.5	778.6	779.6	779.6
5°	769.5	771.5	775.6	776.6	777.6
7.5°	764.4	765.4	770.5	772.5	773.5
10°	756.3	758.3	763.4	766.4	767.5
12.5°	745.2	748.2	754.3	758.3	759.4
15°	732.0	736.1	742.1	748.2	749.2
17.5°	717.8	721.9	730.0	737.1	739.1
20°	700.6	705.7	714.8	722.9	725.9
22.5°	683.4	687.5	698.6	708.7	711.8
25°	662.2	668.2	682.4	691.5	695.6
27.5°	639.9	647.0	661.1	673.3	677.3
30°	616.6	623.7	638.9	654.1	659.1
32.5°	592.3	600.4	618.6	633.8	638.9
35°	567.0	574.1	593.3	611.5	617.6
37.5°	540.7	546.7	569.0	588.2	594.3
40°	512.3	520.4	543.7	566.0	572.0
42.5°	484.0	493.1	516.4	540.7	546.7
45°	455.6	465.7	490.0	515.3	522.4
47.5°	428.3	436.4	463.7	488.0	498.1
50°	398.9	407.0	433.3	460.7	470.8
52.5°	368.5	379.7	408.0	434.4	446.5
55°	339.2	350.3	379.7	406.0	417.1
57.5°	311.8	321.0	351.3	378.7	389.8
60°	282.5	290.6	323.0	352.3	362.5
62.5°	251.1	263.2	296.7	324.0	336.1
65°	222.7	235.9	271.3	297.7	309.8
67.5°	196.4	208.6	243.0	271.3	284.5
70°	166.0	182.2	217.7	246.0	258.2
72.5°	141.7	155.9	192.4	220.7	233.9
75°	113.4	130.6	167.1	195.4	205.5
77.5°	90.1	107.3	141.7	164.0	169.1
80°	65.8	83.0	115.4	126.6	129.6
82.5°	44.5	60.7	83.0	86.1	87.1
85°	27.3	37.5	48.6	48.6	48.6
87.5°	13.2	15.2	17.2	16.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)