

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: P277445

Luminaire Tested: **22CZ2-24HE-S-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277445  
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-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2049.0 lumens  
Efficiency: N/A  
Efficacy: 116.6 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

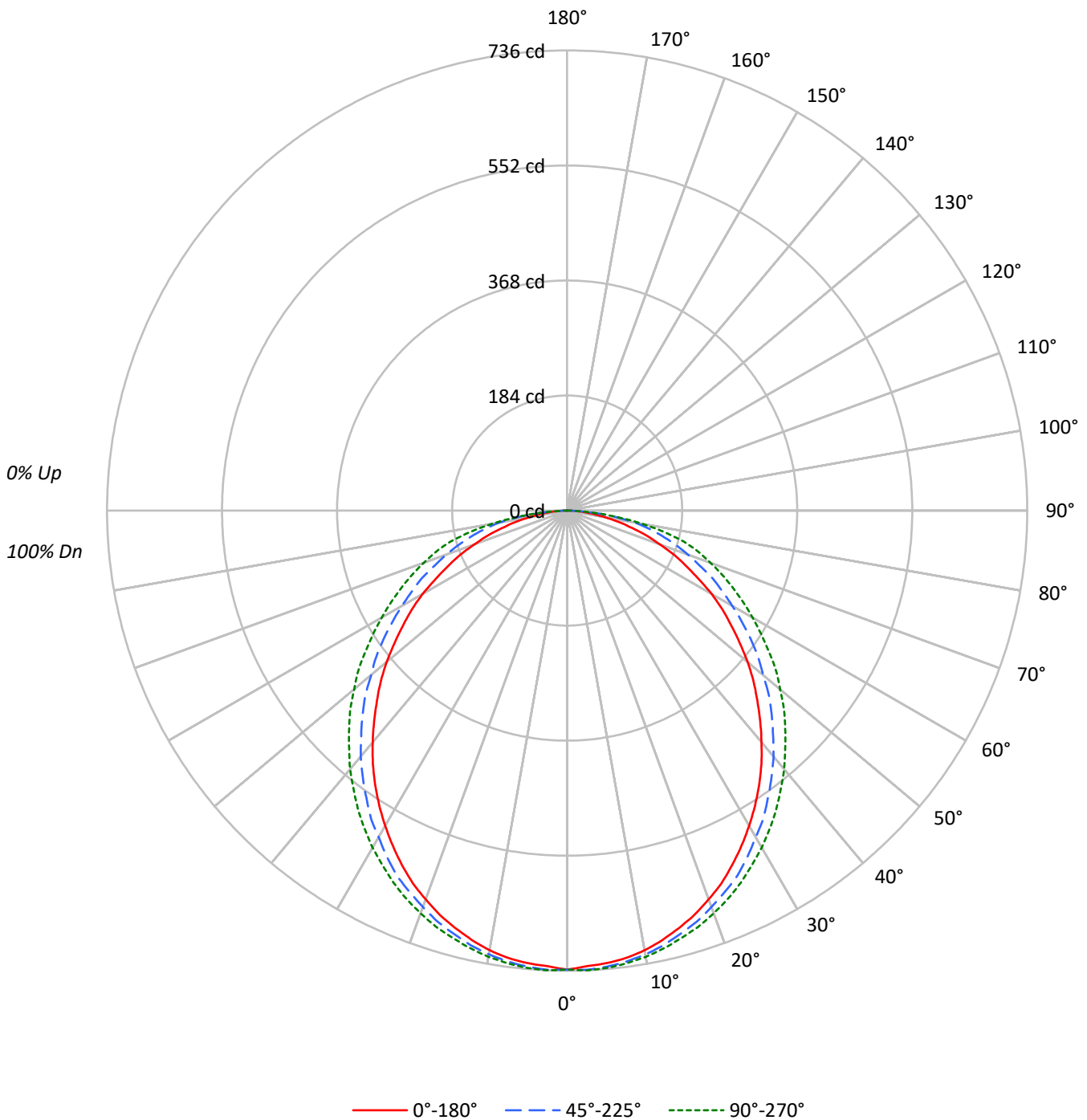
Input Watts (W): 17.577  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1976	1976	1976
5°	1963	1978	1983
10°	1951	1970	1980
15°	1926	1952	1971
20°	1895	1933	1963
25°	1856	1913	1950
30°	1809	1874	1934
35°	1759	1840	1916
40°	1699	1803	1897
45°	1637	1761	1877
50°	1577	1713	1861
55°	1503	1682	1848
60°	1435	1641	1842
65°	1339	1631	1862
70°	1234	1617	1918
75°	1114	1640	2018
80°	962	1689	1897
85°	797	1417	1417



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	3.4
10°-20°	197.6	9.6
20°-30°	295.7	14.4
30°-40°	350.1	17.1
40°-50°	356.8	17.4
50°-60°	319.8	15.6
60°-70°	250.4	12.2
70°-80°	161.4	7.9
80°-90°	47.7	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°	562.7	27.5
0°-40°	912.8	44.5
0°-60°	1589.5	77.6
0°-90°	2049.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2049.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	727	728	732	733	734	69
15°	691	695	701	706	708	195
25°	625	631	644	653	657	288
35°	535	542	560	577	583	335
45°	430	440	463	487	493	332
55°	320	331	358	383	394	287
65°	210	223	256	281	292	209
75°	107	123	158	184	194	115
85°	26	35	46	46	46	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	734.2	734.2	734.2	734.2	734.2
2.5°	729.4	731.4	735.2	736.1	736.1
5°	726.6	728.5	732.3	733.3	734.2
7.5°	721.8	722.7	727.5	729.4	730.4
10°	714.1	716.1	720.8	723.7	724.7
12.5°	703.6	706.5	712.2	716.1	717.0
15°	691.2	695.0	700.8	706.5	707.5
17.5°	677.8	681.6	689.3	696.0	697.9
20°	661.6	666.3	674.9	682.6	685.5
22.5°	645.3	649.1	659.7	669.2	672.1
25°	625.2	631.0	644.4	653.0	656.8
27.5°	604.2	610.9	624.3	635.8	639.6
30°	582.2	588.9	603.2	617.6	622.4
32.5°	559.3	566.9	584.1	598.5	603.2
35°	535.4	542.1	560.2	577.4	583.2
37.5°	510.5	516.2	537.3	555.4	561.2
40°	483.7	491.4	513.4	534.4	540.1
42.5°	457.0	465.6	487.6	510.5	516.2
45°	430.2	439.8	462.7	486.6	493.3
47.5°	404.4	412.0	437.9	460.8	470.4
50°	376.7	384.3	409.2	435.0	444.5
52.5°	348.0	358.5	385.3	410.1	421.6
55°	320.3	330.8	358.5	383.4	393.9
57.5°	294.5	303.1	331.7	357.6	368.1
60°	266.7	274.4	305.0	332.7	342.3
62.5°	237.1	248.6	280.1	305.9	317.4
65°	210.3	222.8	256.2	281.1	292.5
67.5°	185.5	196.9	229.4	256.2	268.6
70°	156.8	172.1	205.5	232.3	243.8
72.5°	133.8	147.2	181.6	208.4	220.8
75°	107.1	123.3	157.7	184.5	194.1
77.5°	85.1	101.3	133.8	154.9	159.7
80°	62.1	78.4	109.0	119.5	122.4
82.5°	42.1	57.4	78.4	81.3	82.2
85°	25.8	35.4	45.9	45.9	45.9
87.5°	12.4	14.3	16.3	15.3	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)