

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: P277391

Luminaire Tested: **22CZ2-24HE-S-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277391  
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-L82765-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2339.0 lumens  
Efficiency: N/A  
Efficacy: 132.4 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

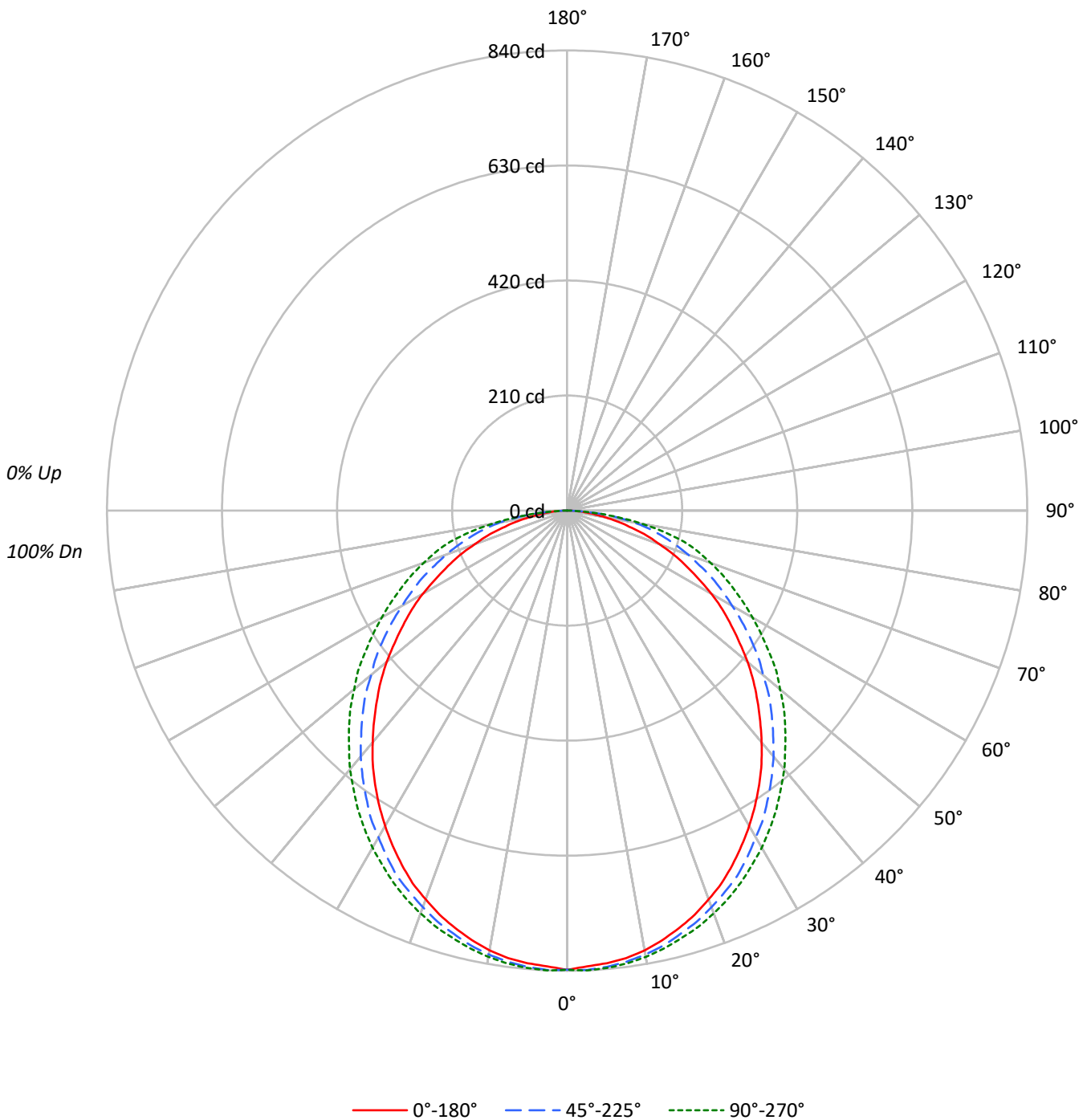
Input Watts (W): 17.67  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2255	2255	2255
5°	2240	2258	2264
10°	2228	2249	2260
15°	2198	2228	2250
20°	2163	2206	2241
25°	2119	2184	2226
30°	2065	2140	2208
35°	2008	2101	2187
40°	1940	2059	2166
45°	1869	2010	2143
50°	1800	1955	2125
55°	1715	1920	2109
60°	1639	1873	2103
65°	1529	1862	2126
70°	1408	1846	2190
75°	1271	1873	2303
80°	1099	1928	2165
85°	911	1618	1618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.3	3.4
10°-20°	225.6	9.6
20°-30°	337.5	14.4
30°-40°	399.7	17.1
40°-50°	407.3	17.4
50°-60°	365.1	15.6
60°-70°	285.8	12.2
70°-80°	184.3	7.9
80°-90°	54.5	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°	642.3	27.5
0°-40°	1042.0	44.5
0°-60°	1814.4	77.6
0°-90°	2339.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2339.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	829	832	836	837	838	79
15°	789	793	800	806	808	222
25°	714	720	736	745	750	329
35°	611	619	640	659	666	382
45°	491	502	528	556	563	379
55°	366	378	409	438	450	328
65°	240	254	292	321	334	238
75°	122	141	180	211	222	131
85°	30	40	52	52	52	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	838.1	838.1	838.1	838.1	838.1
2.5°	832.7	834.9	839.2	840.3	840.3
5°	829.4	831.6	836.0	837.0	838.1
7.5°	823.9	825.0	830.5	832.7	833.8
10°	815.2	817.4	822.9	826.1	827.2
12.5°	803.2	806.5	813.0	817.4	818.5
15°	789.0	793.4	799.9	806.5	807.6
17.5°	773.7	778.1	786.8	794.5	796.7
20°	755.2	760.7	770.5	779.2	782.5
22.5°	736.6	741.0	753.0	763.9	767.2
25°	713.7	720.3	735.6	745.4	749.7
27.5°	689.7	697.4	712.6	725.7	730.1
30°	664.6	672.3	688.6	705.0	710.5
32.5°	638.4	647.2	666.8	683.2	688.6
35°	611.1	618.8	639.5	659.2	665.7
37.5°	582.8	589.3	613.3	634.1	640.6
40°	552.2	560.9	586.0	610.0	616.6
42.5°	521.7	531.5	556.6	582.8	589.3
45°	491.1	502.0	528.2	555.5	563.1
47.5°	461.6	470.4	499.8	526.0	536.9
50°	430.0	438.7	467.1	496.6	507.5
52.5°	397.2	409.2	439.8	468.2	481.3
55°	365.6	377.6	409.2	437.6	449.6
57.5°	336.1	345.9	378.7	408.2	420.2
60°	304.5	313.2	348.1	379.8	390.7
62.5°	270.6	283.7	319.8	349.2	362.3
65°	240.1	254.3	292.5	320.8	333.9
67.5°	211.7	224.8	261.9	292.5	306.7
70°	179.0	196.4	234.6	265.2	278.3
72.5°	152.8	168.1	207.4	237.9	252.1
75°	122.2	140.8	180.1	210.6	221.5
77.5°	97.1	115.7	152.8	176.8	182.3
80°	70.9	89.5	124.4	136.4	139.7
82.5°	48.0	65.5	89.5	92.8	93.9
85°	29.5	40.4	52.4	52.4	52.4
87.5°	14.2	16.4	18.6	17.5	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)