

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: P259440

Luminaire Tested: **22CZ-LD5-20-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259440  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25712)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-20-S-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2238.0 lumens  
Efficiency: N/A  
Efficacy: 141.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

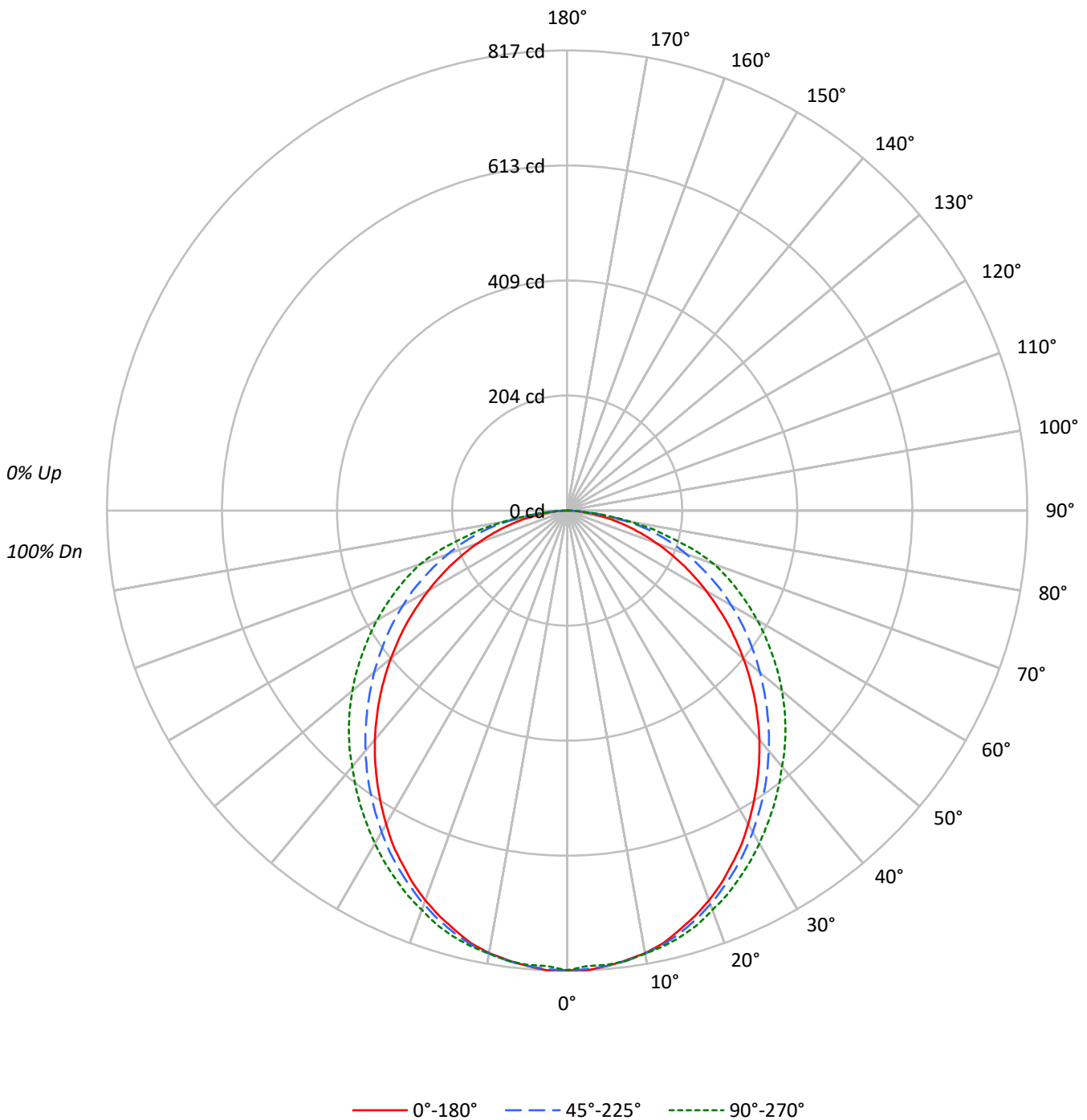
Input Watts (W): 15.81  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	77	85	79	75	81	77	73	78	75	71	69																												
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	64	60	58																												
4	82	70	61	54	80	69	61	54	66	59	53	64	58	53	62	56	52	50																												
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43																												
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38																												
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33																												
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30																												
9	56	43	35	29	55	42	34	29	41	34	29	40	34	29	39	33	29	27																												
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2196	2196	2196
5°	2192	2192	2186
10°	2179	2182	2182
15°	2147	2162	2180
20°	2109	2130	2161
25°	2056	2091	2142
30°	1997	2047	2121
35°	1932	2002	2101
40°	1865	1956	2085
45°	1792	1910	2086
50°	1710	1872	2084
55°	1629	1841	2083
60°	1533	1811	2100
65°	1437	1787	2129
70°	1328	1768	2182
75°	1196	1755	2023
80°	1049	1632	1765
85°	861	1229	1096



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.0	3.4
10°-20°	218.9	9.8
20°-30°	325.1	14.5
30°-40°	382.6	17.1
40°-50°	390.1	17.4
50°-60°	351.8	15.7
60°-70°	277.1	12.4
70°-80°	170.9	7.6
80°-90°	44.4	2.0
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°	621.0	27.7
0°-40°	1003.6	44.8
0°-60°	1745.6	78.0
0°-90°	2238.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2238.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	812	813	812	810	809	77
15°	771	774	776	780	783	217
25°	692	697	704	716	721	319
35°	588	594	610	629	640	368
45°	471	478	502	532	548	363
55°	347	359	392	428	444	310
65°	226	242	281	316	334	224
75°	115	134	169	188	195	123
85°	28	36	40	38	36	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	815.9	815.9	815.9	815.9	815.9
2.5°	817.0	817.0	814.8	812.7	809.4
5°	811.6	812.7	811.6	810.5	809.4
7.5°	805.1	806.2	806.2	806.2	806.2
10°	797.6	798.7	798.7	798.7	798.7
12.5°	786.9	787.9	789.0	790.1	792.2
15°	770.7	774.0	776.1	780.4	782.6
17.5°	754.6	757.8	761.1	766.4	770.7
20°	736.3	738.5	743.9	750.3	754.6
22.5°	715.9	719.1	724.5	733.1	739.6
25°	692.3	696.6	704.1	715.9	721.3
27.5°	669.7	672.9	682.6	695.5	703.0
30°	642.8	647.1	658.9	675.1	682.6
32.5°	615.9	621.3	634.2	652.5	661.1
35°	588.0	594.4	609.5	628.8	639.6
37.5°	560.0	566.5	583.7	605.2	617.0
40°	531.0	537.5	556.8	580.5	593.4
42.5°	500.9	508.4	529.9	556.8	571.9
45°	470.8	478.4	502.0	532.1	548.2
47.5°	439.7	448.3	474.1	507.4	523.5
50°	408.5	418.2	447.2	481.6	497.7
52.5°	377.3	388.1	419.2	454.7	471.9
55°	347.2	359.0	392.4	427.8	444.0
57.5°	315.0	328.9	364.4	398.8	417.1
60°	284.9	299.9	336.5	370.9	390.2
62.5°	254.8	270.9	309.6	344.0	362.3
65°	225.7	241.9	280.6	316.0	334.3
67.5°	196.7	215.0	252.6	288.1	306.4
70°	168.8	188.1	224.7	259.1	277.3
72.5°	141.9	161.2	197.8	230.0	240.8
75°	115.0	134.4	168.8	188.1	194.6
77.5°	90.3	108.6	138.7	150.5	159.1
80°	67.7	83.8	105.3	112.9	113.9
82.5°	46.2	60.2	73.1	74.2	73.1
85°	27.9	35.5	39.8	37.6	35.5
87.5°	12.9	14.0	12.9	8.6	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)