

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: P258707

Luminaire Tested: **14CZ-LD5-20-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258707  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35112)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-20-S-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 1x4 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: 2279.2 lumens  
Efficiency: N/A  
Efficacy: 141.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

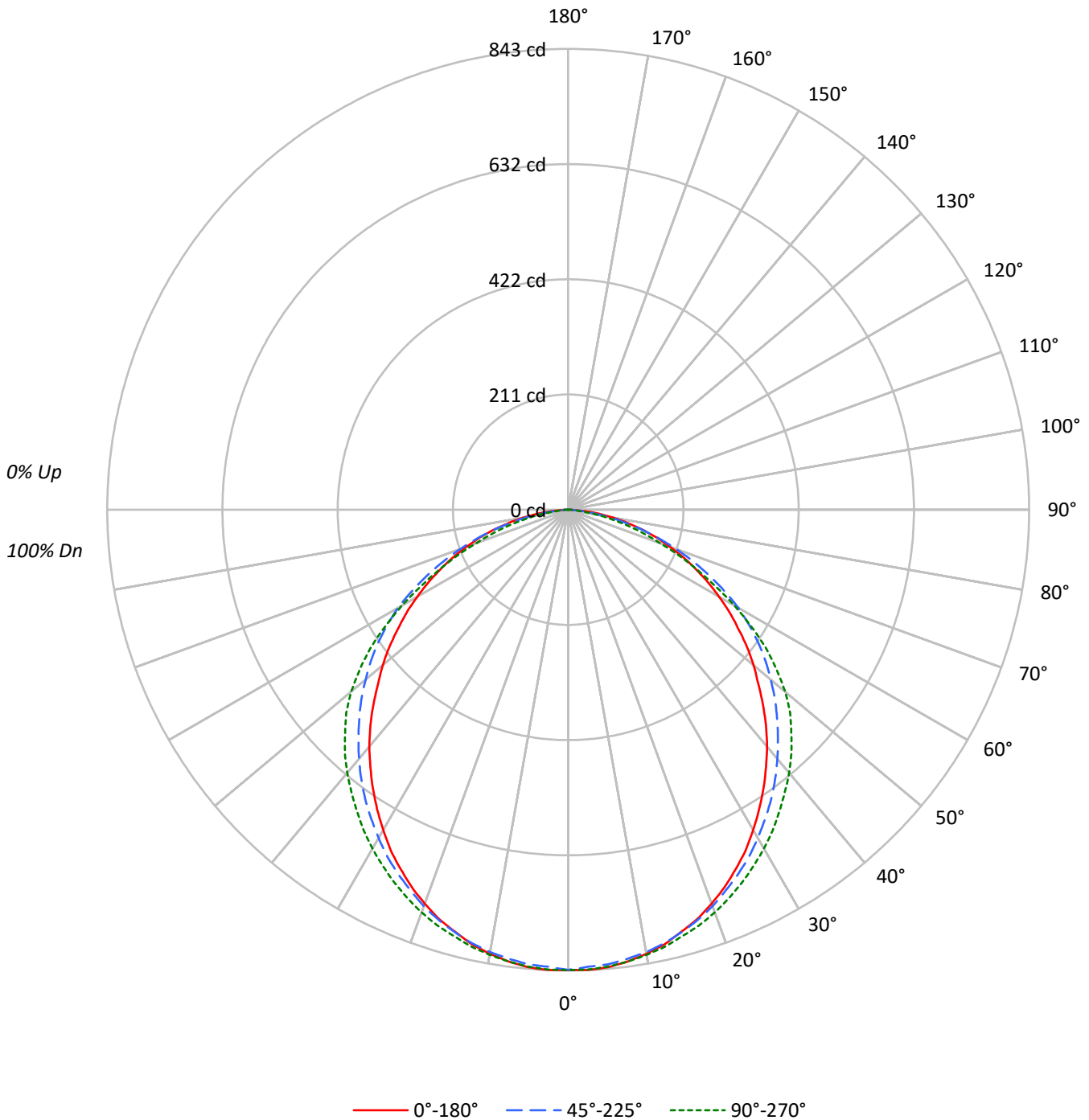
Input Watts (W): 16.089  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	45°	90°
0°	2266	2266	2266
5°	2269	2255	2266
10°	2253	2245	2259
15°	2227	2230	2249
20°	2196	2210	2245
25°	2153	2183	2235
30°	2102	2155	2225
35°	2045	2125	2212
40°	1987	2090	2209
45°	1917	2056	2195
50°	1854	2024	2169
55°	1782	1992	2073
60°	1716	1935	1891
65°	1643	1811	1662
70°	1550	1646	1406
75°	1446	1425	1161
80°	1275	1102	849
85°	1003	534	469



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.6	3.5
10°-20°	226.6	9.9
20°-30°	340.1	14.9
30°-40°	405.5	17.8
40°-50°	417.7	18.3
50°-60°	372.2	16.3
60°-70°	268.2	11.8
70°-80°	140.3	6.2
80°-90°	29.0	1.3
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°	646.3	28.4
0°-40°	1051.8	46.1
0°-60°	1841.7	80.8
0°-90°	2279.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2279.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	840	838	835	840	839	80
15°	799	800	800	808	807	226
25°	725	729	735	750	753	334
35°	623	631	647	668	673	389
45°	504	515	540	571	577	389
55°	380	392	424	444	442	341
65°	258	267	284	271	261	256
75°	139	146	137	119	112	147
85°	32	28	17	15	15	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	841.9	841.9	841.9	841.9	841.9
2.5°	842.9	840.9	836.8	841.9	841.9
5°	839.9	837.9	834.8	839.9	838.9
7.5°	833.8	831.8	828.7	834.8	833.8
10°	824.7	823.6	821.6	827.7	826.7
12.5°	814.5	813.5	812.5	818.6	818.6
15°	799.3	800.3	800.3	808.4	807.4
17.5°	785.1	786.1	787.1	797.2	797.2
20°	766.8	767.8	771.9	783.0	784.0
22.5°	747.5	748.5	753.6	766.8	768.8
25°	725.1	729.2	735.3	749.5	752.6
27.5°	702.8	705.8	716.0	732.2	734.3
30°	676.4	682.5	693.6	711.9	716.0
32.5°	650.0	657.1	670.3	690.6	695.7
35°	622.6	630.7	646.9	668.3	673.3
37.5°	594.1	601.2	621.5	643.9	651.0
40°	565.7	572.8	595.1	620.5	628.7
42.5°	535.2	545.4	567.7	596.2	604.3
45°	503.7	514.9	540.3	570.8	576.9
47.5°	471.2	483.4	512.9	543.3	550.5
50°	442.8	454.0	483.4	512.9	518.0
52.5°	412.3	422.5	455.0	479.4	480.4
55°	379.8	392.0	424.5	443.8	441.8
57.5°	350.4	360.5	392.0	402.2	396.1
60°	318.9	328.0	359.5	360.5	351.4
62.5°	288.4	297.6	321.9	314.8	303.7
65°	258.0	267.1	284.4	271.2	261.0
67.5°	228.5	236.6	246.8	229.5	219.4
70°	197.0	208.2	209.2	188.9	178.7
72.5°	169.6	175.7	173.7	154.4	145.2
75°	139.1	146.2	137.1	118.8	111.7
77.5°	110.7	115.8	103.6	86.3	81.2
80°	82.3	85.3	71.1	57.9	54.8
82.5°	55.9	55.9	40.6	31.5	28.4
85°	32.5	28.4	17.3	15.2	15.2
87.5°	11.2	7.1	7.1	7.1	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)