

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: P259379

Luminaire Tested: **22CZ-LD5-20-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259379  
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-L83050-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: 2335.0 lumens  
Efficiency: N/A  
Efficacy: 143.5 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

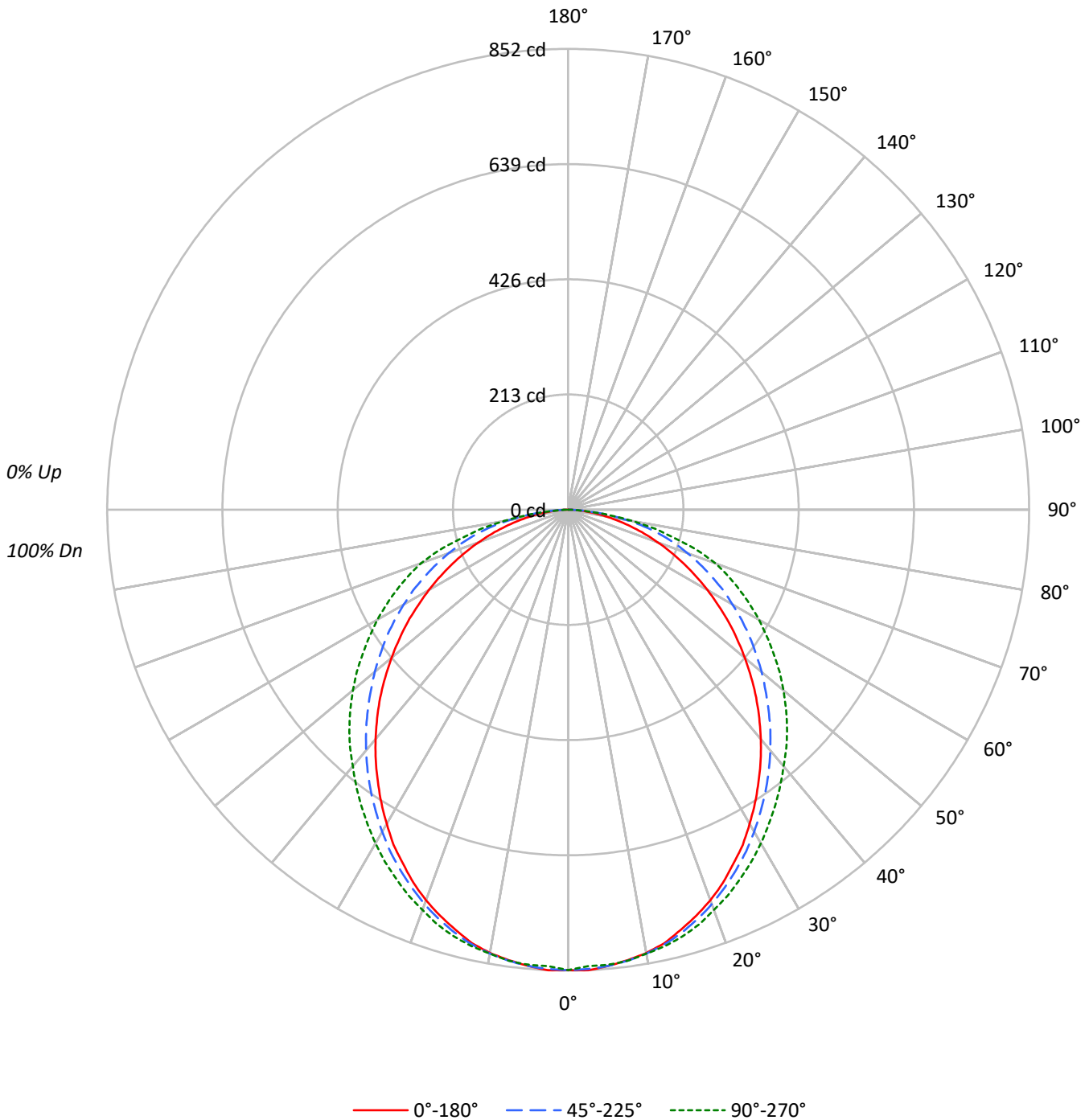
Input Watts (W): 16.275  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2291	2291	2291
5°	2287	2287	2281
10°	2274	2277	2277
15°	2240	2256	2275
20°	2200	2223	2255
25°	2145	2181	2235
30°	2084	2136	2213
35°	2015	2089	2192
40°	1946	2041	2175
45°	1869	1993	2177
50°	1784	1953	2174
55°	1700	1921	2173
60°	1600	1889	2191
65°	1500	1864	2221
70°	1386	1844	2277
75°	1248	1831	2111
80°	1096	1703	1843
85°	902	1281	1142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.4	3.4
10°-20°	228.4	9.8
20°-30°	339.2	14.5
30°-40°	399.2	17.1
40°-50°	407.0	17.4
50°-60°	367.1	15.7
60°-70°	289.1	12.4
70°-80°	178.4	7.6
80°-90°	46.3	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°	647.9	27.7
0°-40°	1047.1	44.8
0°-60°	1821.2	78.0
0°-90°	2335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2335.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	851	851	851	851	851	
5°	847	848	847	846	844	80
15°	804	808	810	814	816	227
25°	722	727	735	747	753	333
35°	614	620	636	656	667	384
45°	491	499	524	555	572	379
55°	362	375	409	446	463	323
65°	236	252	293	330	349	233
75°	120	140	176	196	203	128
85°	29	37	42	39	37	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	851.2	851.2	851.2	851.2	851.2
2.5°	852.4	852.4	850.1	847.9	844.5
5°	846.8	847.9	846.8	845.6	844.5
7.5°	840.0	841.2	841.2	841.2	841.2
10°	832.2	833.3	833.3	833.3	833.3
12.5°	821.0	822.1	823.2	824.3	826.6
15°	804.1	807.5	809.7	814.2	816.5
17.5°	787.3	790.7	794.0	799.7	804.1
20°	768.3	770.5	776.1	782.8	787.3
22.5°	746.9	750.3	755.9	764.9	771.6
25°	722.3	726.8	734.6	746.9	752.6
27.5°	698.7	702.1	712.2	725.6	733.5
30°	670.7	675.2	687.5	704.3	712.2
32.5°	642.6	648.2	661.7	680.8	689.7
35°	613.5	620.2	635.9	656.1	667.3
37.5°	584.3	591.0	609.0	631.4	643.8
40°	554.0	560.8	581.0	605.6	619.1
42.5°	522.6	530.5	552.9	581.0	596.7
45°	491.2	499.1	523.8	555.2	572.0
47.5°	458.7	467.7	494.6	529.4	546.2
50°	426.2	436.3	466.6	502.4	519.3
52.5°	393.7	404.9	437.4	474.4	492.4
55°	362.3	374.6	409.4	446.4	463.2
57.5°	328.6	343.2	380.2	416.1	435.2
60°	297.2	312.9	351.0	386.9	407.1
62.5°	265.8	282.6	323.0	358.9	378.0
65°	235.5	252.3	292.7	329.7	348.8
67.5°	205.2	224.3	263.6	300.6	319.6
70°	176.1	196.3	234.4	270.3	289.4
72.5°	148.0	168.2	206.4	240.0	251.2
75°	120.0	140.2	176.1	196.3	203.0
77.5°	94.2	113.3	144.7	157.0	166.0
80°	70.7	87.5	109.9	117.8	118.9
82.5°	48.2	62.8	76.3	77.4	76.3
85°	29.2	37.0	41.5	39.3	37.0
87.5°	13.5	14.6	13.5	9.0	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)