

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: P277363

Luminaire Tested: **22CZ2-29HE-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277363  
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: 22CZ2-29HE-S-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2616.0 lumens  
Efficiency: N/A  
Efficacy: 120.5 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

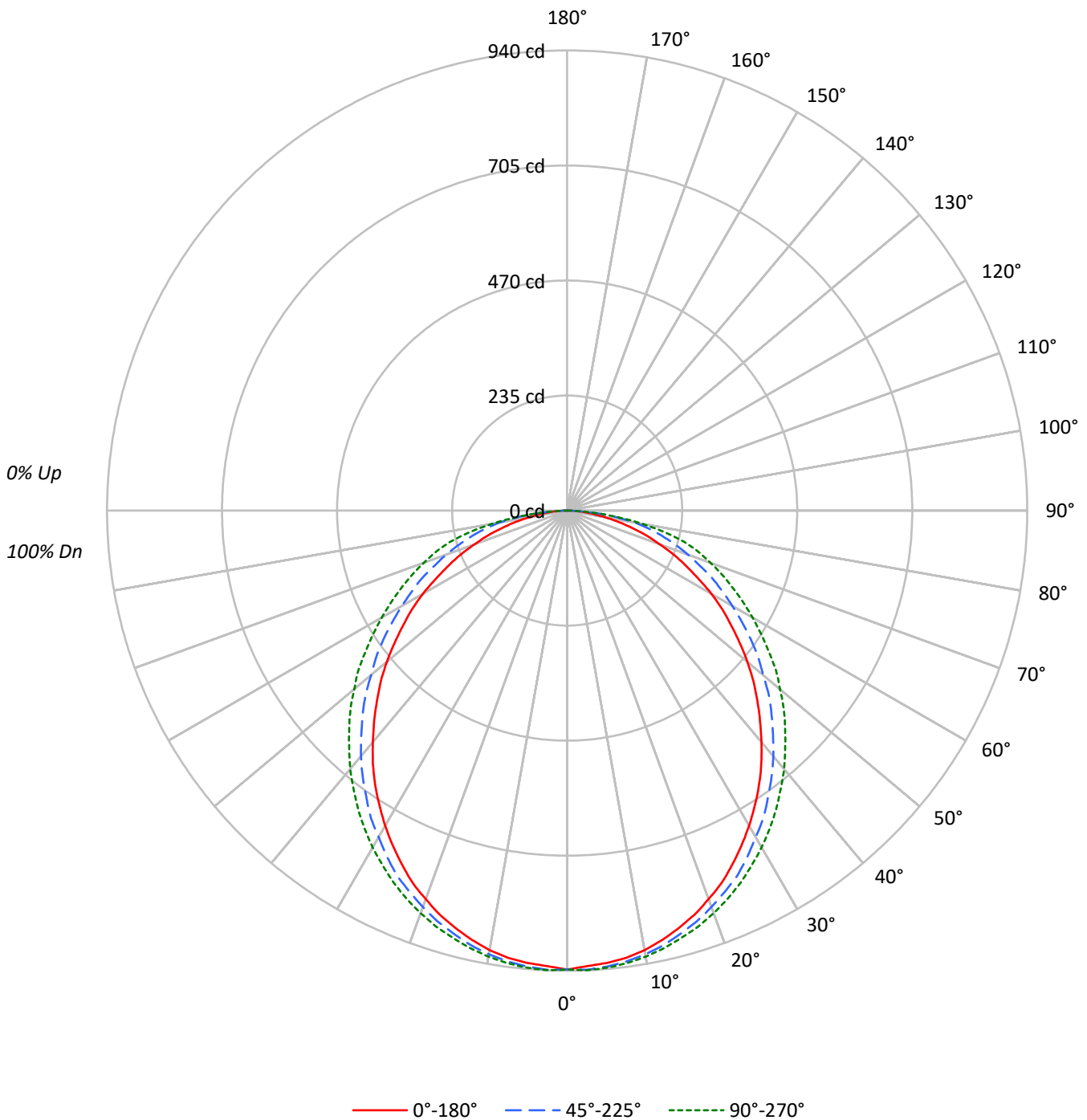
Input Watts (W): 21.706944  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2523	2523	2523
5°	2506	2526	2532
10°	2491	2515	2528
15°	2459	2493	2516
20°	2419	2468	2506
25°	2370	2443	2490
30°	2310	2393	2469
35°	2245	2350	2446
40°	2170	2302	2422
45°	2090	2248	2397
50°	2013	2187	2376
55°	1918	2147	2359
60°	1833	2096	2352
65°	1710	2083	2378
70°	1575	2065	2448
75°	1421	2094	2576
80°	1229	2156	2421
85°	1019	1809	1809



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.6	3.4
10°-20°	252.3	9.6
20°-30°	377.5	14.4
30°-40°	447.0	17.1
40°-50°	455.6	17.4
50°-60°	408.3	15.6
60°-70°	319.7	12.2
70°-80°	206.1	7.9
80°-90°	60.9	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°	718.4	27.5
0°-40°	1165.4	44.5
0°-60°	2029.3	77.6
0°-90°	2616.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2616.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	937	937	937	937	937	
5°	928	930	935	936	937	88
15°	882	887	895	902	903	249
25°	798	806	823	834	838	367
35°	684	692	715	737	744	427
45°	549	562	591	621	630	424
55°	409	422	458	489	503	367
65°	268	284	327	359	374	267
75°	137	158	201	236	248	147
85°	33	45	59	59	59	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	937.4	937.4	937.4	937.4	937.4
2.5°	931.3	933.7	938.6	939.8	939.8
5°	927.6	930.1	935.0	936.2	937.4
7.5°	921.5	922.7	928.9	931.3	932.5
10°	911.8	914.2	920.3	924.0	925.2
12.5°	898.3	902.0	909.3	914.2	915.4
15°	882.5	887.4	894.7	902.0	903.2
17.5°	865.4	870.3	880.0	888.6	891.0
20°	844.6	850.7	861.7	871.5	875.1
22.5°	823.9	828.8	842.2	854.4	858.1
25°	798.2	805.6	822.7	833.6	838.5
27.5°	771.4	779.9	797.0	811.7	816.6
30°	743.3	751.9	770.2	788.5	794.6
32.5°	714.0	723.8	745.8	764.1	770.2
35°	683.5	692.1	715.3	737.2	744.5
37.5°	651.8	659.1	686.0	709.1	716.5
40°	617.6	627.4	655.4	682.3	689.6
42.5°	583.4	594.4	622.5	651.8	659.1
45°	549.3	561.5	590.8	621.3	629.8
47.5°	516.3	526.1	559.0	588.3	600.5
50°	480.9	490.7	522.4	555.4	567.6
52.5°	444.3	457.7	491.9	523.6	538.3
55°	408.9	422.3	457.7	489.4	502.9
57.5°	375.9	386.9	423.5	456.5	469.9
60°	340.5	350.3	389.4	424.8	437.0
62.5°	302.7	317.3	357.6	390.6	405.2
65°	268.5	284.4	327.1	358.8	373.5
67.5°	236.8	251.4	292.9	327.1	343.0
70°	200.2	219.7	262.4	296.6	311.2
72.5°	170.9	188.0	231.9	266.1	282.0
75°	136.7	157.5	201.4	235.6	247.8
77.5°	108.6	129.4	170.9	197.7	203.8
80°	79.3	100.1	139.1	152.6	156.2
82.5°	53.7	73.2	100.1	103.7	105.0
85°	33.0	45.2	58.6	58.6	58.6
87.5°	15.9	18.3	20.7	19.5	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)