

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: P277162

Luminaire Tested: **22CZ2-29HE-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277162  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-29HE-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2510.0 lumens  
Efficiency: N/A  
Efficacy: 120.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

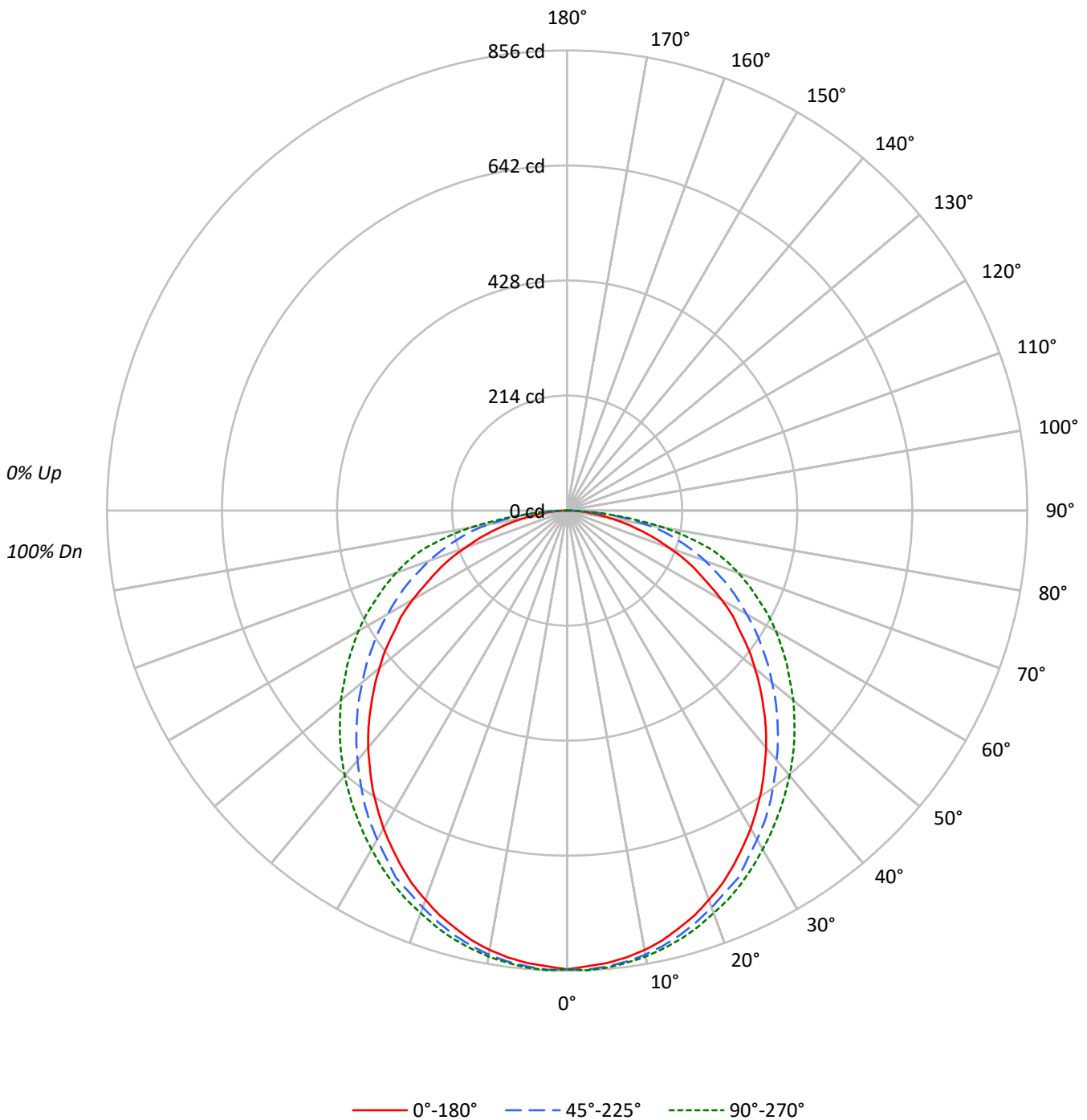
Input Watts (W): 20.832  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	2296	2296	2296
5°	2282	2299	2305
10°	2268	2291	2302
15°	2240	2274	2295
20°	2207	2249	2281
25°	2167	2237	2274
30°	2122	2195	2261
35°	2073	2167	2256
40°	2022	2130	2261
45°	1965	2106	2275
50°	1908	2084	2301
55°	1843	2075	2341
60°	1788	2074	2413
65°	1699	2108	2501
70°	1584	2148	2662
75°	1451	2222	2877
80°	1263	2315	2833
85°	1105	2059	2251



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.7	3.2
10°-20°	229.9	9.2
20°-30°	345.1	13.7
30°-40°	412.4	16.4
40°-50°	428.8	17.1
50°-60°	397.4	15.8
60°-70°	326.0	13.0
70°-80°	220.4	8.8
80°-90°	69.2	2.8
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°	655.7	26.1
0°-40°	1068.1	42.6
0°-60°	1894.4	75.5
0°-90°	2510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2510.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	845	846	851	852	853	80
15°	804	808	816	821	824	227
25°	730	736	753	762	766	336
35°	631	640	660	679	687	394
45°	516	526	553	585	598	399
55°	393	405	442	482	499	353
65°	267	282	331	374	393	264
75°	140	163	214	257	277	148
85°	36	49	67	74	73	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	853.4	853.4	853.4	853.4	853.4
2.5°	848.5	851.0	854.7	855.9	855.9
5°	844.8	846.0	851.0	852.2	853.4
7.5°	838.6	841.1	846.0	847.3	848.5
10°	830.0	832.4	838.6	841.1	842.3
12.5°	818.9	821.3	828.7	832.4	833.7
15°	804.0	807.7	816.4	821.3	823.8
17.5°	789.2	792.9	801.6	809.0	811.5
20°	770.7	779.3	785.5	795.4	796.6
22.5°	752.2	757.1	768.2	778.1	783.0
25°	729.9	736.1	753.4	762.0	765.8
27.5°	706.5	715.1	728.7	742.3	747.2
30°	683.0	689.2	706.5	722.5	727.5
32.5°	657.1	665.7	684.2	700.3	707.7
35°	631.1	639.8	659.5	679.3	686.7
37.5°	602.7	612.6	632.4	655.8	665.7
40°	575.6	583.0	606.4	634.8	643.5
42.5°	547.1	555.8	580.5	611.4	621.2
45°	516.3	526.1	553.3	585.4	597.8
47.5°	486.6	496.5	526.1	558.3	573.1
50°	455.7	468.1	497.7	534.8	549.6
52.5°	426.1	437.2	470.6	508.9	522.4
55°	392.8	405.1	442.2	481.7	499.0
57.5°	365.6	374.2	415.0	455.7	473.0
60°	332.2	343.4	385.3	428.6	448.3
62.5°	296.4	314.9	358.2	402.6	422.4
65°	266.8	281.6	331.0	374.2	392.8
67.5°	235.9	252.0	300.1	345.8	366.8
70°	201.3	222.3	273.0	318.7	338.4
72.5°	170.4	192.7	244.5	289.0	310.0
75°	139.6	163.0	213.7	256.9	276.7
77.5°	109.9	135.9	185.3	218.6	231.0
80°	81.5	106.2	149.4	172.9	182.8
82.5°	56.8	77.8	109.9	122.3	124.7
85°	35.8	49.4	66.7	74.1	72.9
87.5°	16.1	19.8	24.7	27.2	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)