

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: P277193

Luminaire Tested: **22CZ2-29HE-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277193  
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-L93050-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2258.0 lumens  
Efficiency: N/A  
Efficacy: 106.4 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

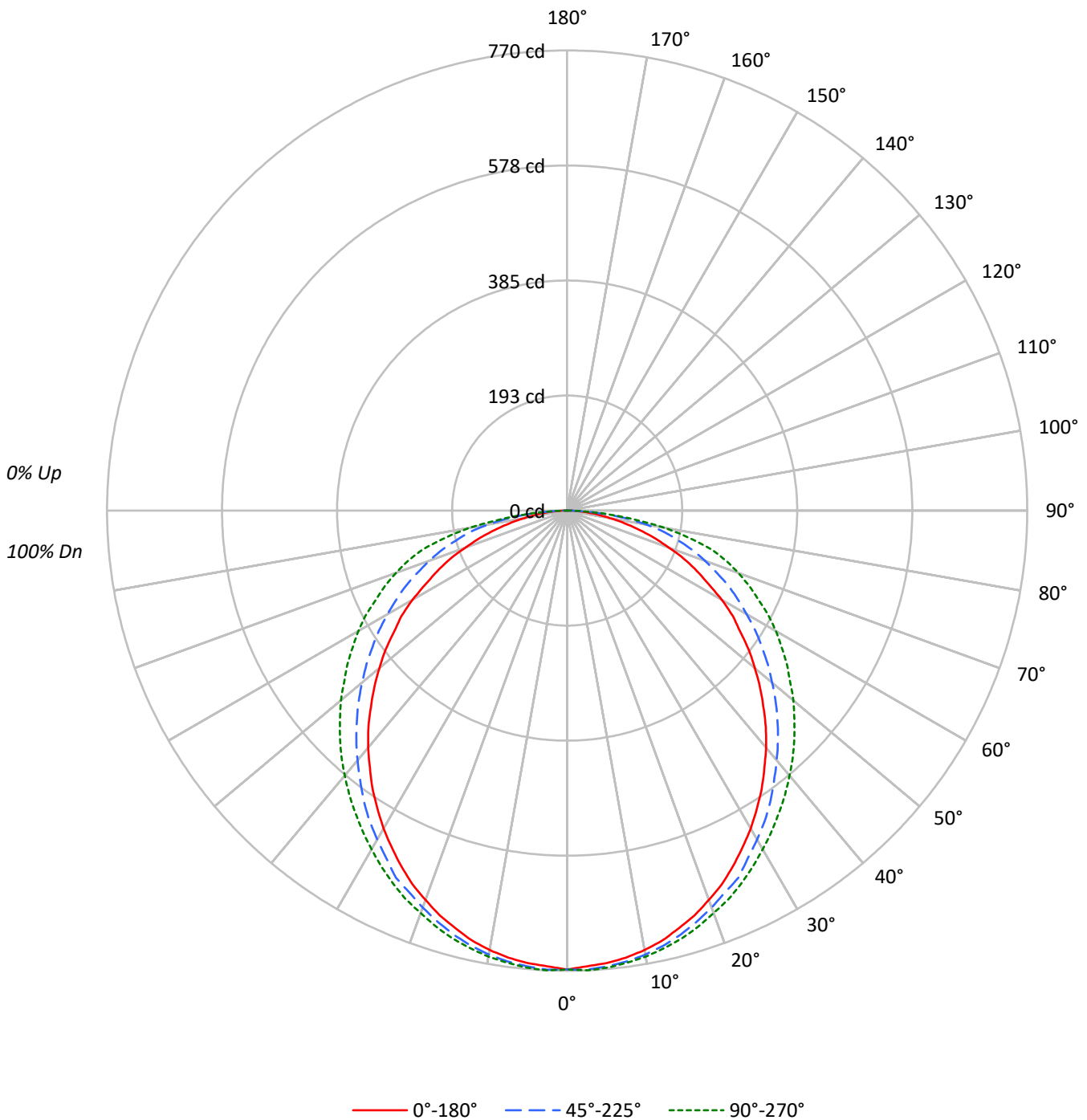
Input Watts (W): 21.227808  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2066	2066	2066
5°	2053	2068	2074
10°	2040	2061	2071
15°	2015	2046	2065
20°	1985	2024	2052
25°	1950	2013	2045
30°	1909	1975	2033
35°	1865	1949	2030
40°	1819	1916	2034
45°	1767	1894	2047
50°	1716	1875	2070
55°	1658	1866	2106
60°	1609	1866	2171
65°	1528	1896	2250
70°	1425	1932	2395
75°	1306	1998	2588
80°	1136	2083	2548
85°	994	1853	2025



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.6	3.2
10°-20°	206.8	9.2
20°-30°	310.5	13.7
30°-40°	371.0	16.4
40°-50°	385.8	17.1
50°-60°	357.5	15.8
60°-70°	293.3	13.0
70°-80°	198.3	8.8
80°-90°	62.3	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°	589.9	26.1
0°-40°	960.9	42.6
0°-60°	1704.2	75.5
0°-90°	2258.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2258.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	760	761	766	767	768	72
15°	723	727	734	739	741	204
25°	657	662	678	686	689	302
35°	568	576	593	611	618	355
45°	464	473	498	527	538	359
55°	353	364	398	433	449	318
65°	240	253	298	337	353	237
75°	126	147	192	231	249	133
85°	32	44	60	67	66	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	767.8	767.8	767.8	767.8	767.8
2.5°	763.3	765.5	768.9	770.0	770.0
5°	760.0	761.1	765.5	766.7	767.8
7.5°	754.4	756.7	761.1	762.2	763.3
10°	746.7	748.9	754.4	756.7	757.8
12.5°	736.7	738.9	745.5	748.9	750.0
15°	723.3	726.7	734.4	738.9	741.1
17.5°	710.0	713.3	721.1	727.8	730.0
20°	693.3	701.1	706.7	715.5	716.7
22.5°	676.7	681.1	691.1	700.0	704.4
25°	656.7	662.2	677.8	685.5	688.9
27.5°	635.5	643.3	655.5	667.8	672.2
30°	614.4	620.0	635.5	650.0	654.4
32.5°	591.1	598.9	615.5	630.0	636.7
35°	567.8	575.5	593.3	611.1	617.8
37.5°	542.2	551.1	568.9	590.0	598.9
40°	517.8	524.4	545.5	571.1	578.9
42.5°	492.2	500.0	522.2	550.0	558.9
45°	464.4	473.3	497.8	526.7	537.8
47.5°	437.8	446.7	473.3	502.2	515.5
50°	410.0	421.1	447.8	481.1	494.4
52.5°	383.3	393.3	423.3	457.8	470.0
55°	353.3	364.4	397.8	433.3	448.9
57.5°	328.9	336.7	373.3	410.0	425.5
60°	298.9	308.9	346.7	385.5	403.3
62.5°	266.7	283.3	322.2	362.2	380.0
65°	240.0	253.3	297.8	336.7	353.3
67.5°	212.2	226.7	270.0	311.1	330.0
70°	181.1	200.0	245.6	286.7	304.4
72.5°	153.3	173.3	220.0	260.0	278.9
75°	125.6	146.7	192.2	231.1	248.9
77.5°	98.9	122.2	166.7	196.7	207.8
80°	73.3	95.6	134.4	155.6	164.4
82.5°	51.1	70.0	98.9	110.0	112.2
85°	32.2	44.4	60.0	66.7	65.6
87.5°	14.4	17.8	22.2	24.4	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)