

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: P277161

Luminaire Tested: **22CZ2-24HE-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277161  
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: 22CZ2-24HE-UNV-L83050-W2A1-U-5000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2408.0 lumens  
Efficiency: N/A  
Efficacy: 130.8 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

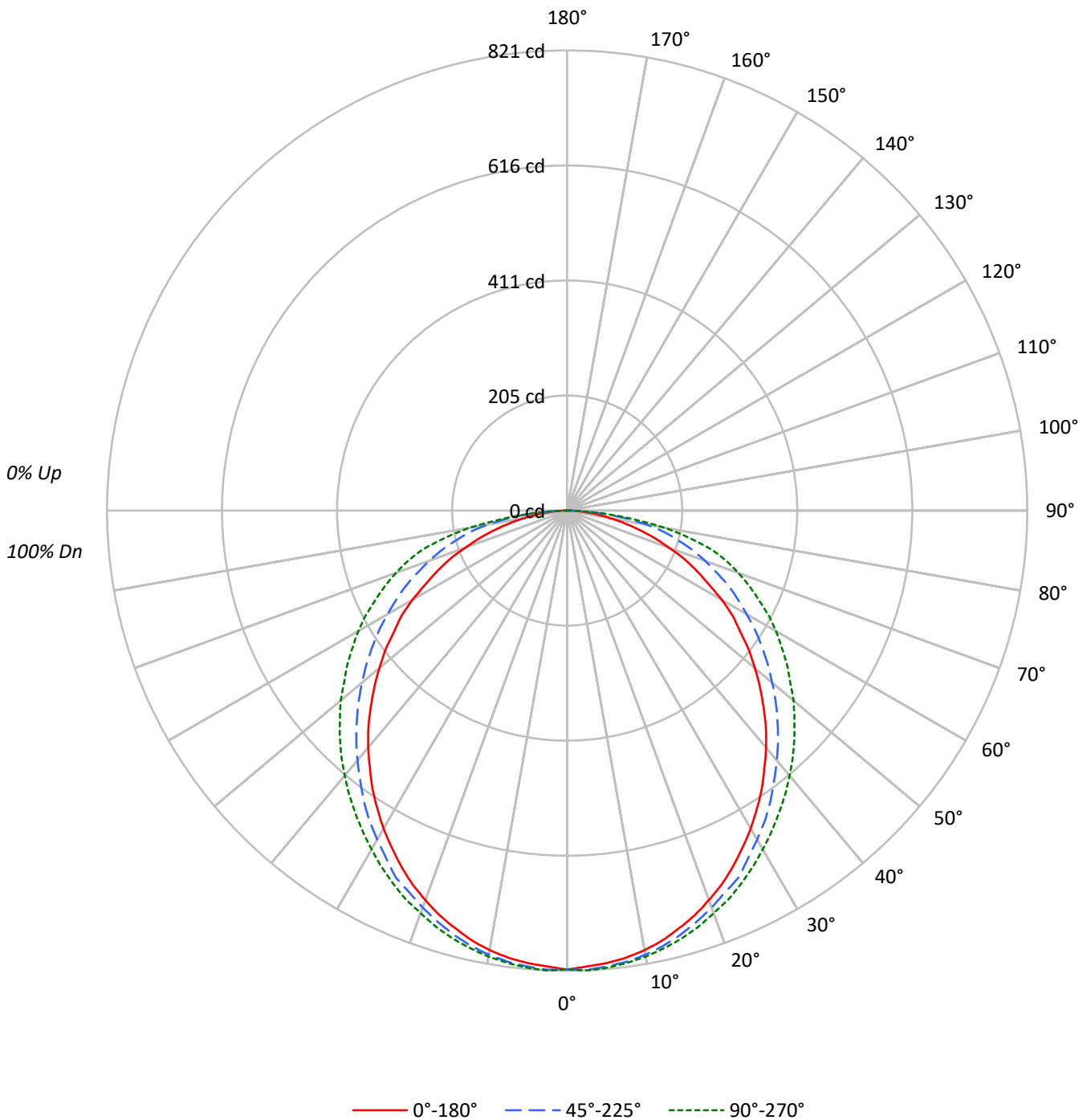
Input Watts (W): 18.414  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2203	2203	2203
5°	2189	2205	2212
10°	2176	2198	2208
15°	2149	2182	2202
20°	2117	2158	2189
25°	2079	2146	2181
30°	2036	2106	2169
35°	1989	2078	2164
40°	1940	2044	2168
45°	1885	2020	2183
50°	1830	1999	2207
55°	1768	1990	2246
60°	1715	1990	2315
65°	1629	2022	2399
70°	1519	2061	2555
75°	1392	2131	2759
80°	1212	2222	2718
85°	1062	1976	2158



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	3.2
10°-20°	220.6	9.2
20°-30°	331.1	13.7
30°-40°	395.6	16.4
40°-50°	411.4	17.1
50°-60°	381.3	15.8
60°-70°	312.8	13.0
70°-80°	211.4	8.8
80°-90°	66.4	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°	629.1	26.1
0°-40°	1024.7	42.6
0°-60°	1817.4	75.5
0°-90°	2408.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2408.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	819	819	819	819	819	
5°	810	812	816	818	819	77
15°	771	775	783	788	790	218
25°	700	706	723	731	735	322
35°	606	614	633	652	659	378
45°	495	505	531	562	574	382
55°	377	389	424	462	479	339
65°	256	270	318	359	377	253
75°	134	156	205	246	265	142
85°	34	47	64	71	70	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	818.8	818.8	818.8	818.8	818.8
2.5°	814.0	816.4	819.9	821.1	821.1
5°	810.5	811.7	816.4	817.6	818.8
7.5°	804.5	806.9	811.7	812.8	814.0
10°	796.3	798.6	804.5	806.9	808.1
12.5°	785.6	788.0	795.1	798.6	799.8
15°	771.4	774.9	783.2	788.0	790.3
17.5°	757.1	760.7	769.0	776.1	778.5
20°	739.4	747.7	753.6	763.1	764.3
22.5°	721.6	726.3	737.0	746.5	751.2
25°	700.3	706.2	722.8	731.1	734.6
27.5°	677.8	686.1	699.1	712.1	716.9
30°	655.2	661.2	677.8	693.2	697.9
32.5°	630.4	638.7	656.4	671.8	678.9
35°	605.5	613.8	632.7	651.7	658.8
37.5°	578.2	587.7	606.7	629.2	638.7
40°	552.2	559.3	581.8	609.0	617.3
42.5°	524.9	533.2	556.9	586.5	596.0
45°	495.3	504.8	530.8	561.6	573.5
47.5°	466.8	476.3	504.8	535.6	549.8
50°	437.2	449.1	477.5	513.1	527.3
52.5°	408.8	419.5	451.4	488.2	501.2
55°	376.8	388.6	424.2	462.1	478.7
57.5°	350.7	359.0	398.1	437.2	453.8
60°	318.7	329.4	369.7	411.2	430.1
62.5°	284.4	302.1	343.6	386.3	405.2
65°	255.9	270.2	317.6	359.0	376.8
67.5°	226.3	241.7	287.9	331.8	351.9
70°	193.1	213.3	261.9	305.7	324.7
72.5°	163.5	184.8	234.6	277.3	297.4
75°	133.9	156.4	205.0	246.5	265.4
77.5°	105.5	130.3	177.7	209.7	221.6
80°	78.2	101.9	143.4	165.9	175.4
82.5°	54.5	74.6	105.5	117.3	119.7
85°	34.4	47.4	64.0	71.1	69.9
87.5°	15.4	19.0	23.7	26.1	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)