

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: P277392

Luminaire Tested: **22CZ2-24HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277392  
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: 22CZ2-24HE-S-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2391.0 lumens  
Efficiency: N/A  
Efficacy: 134.6 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

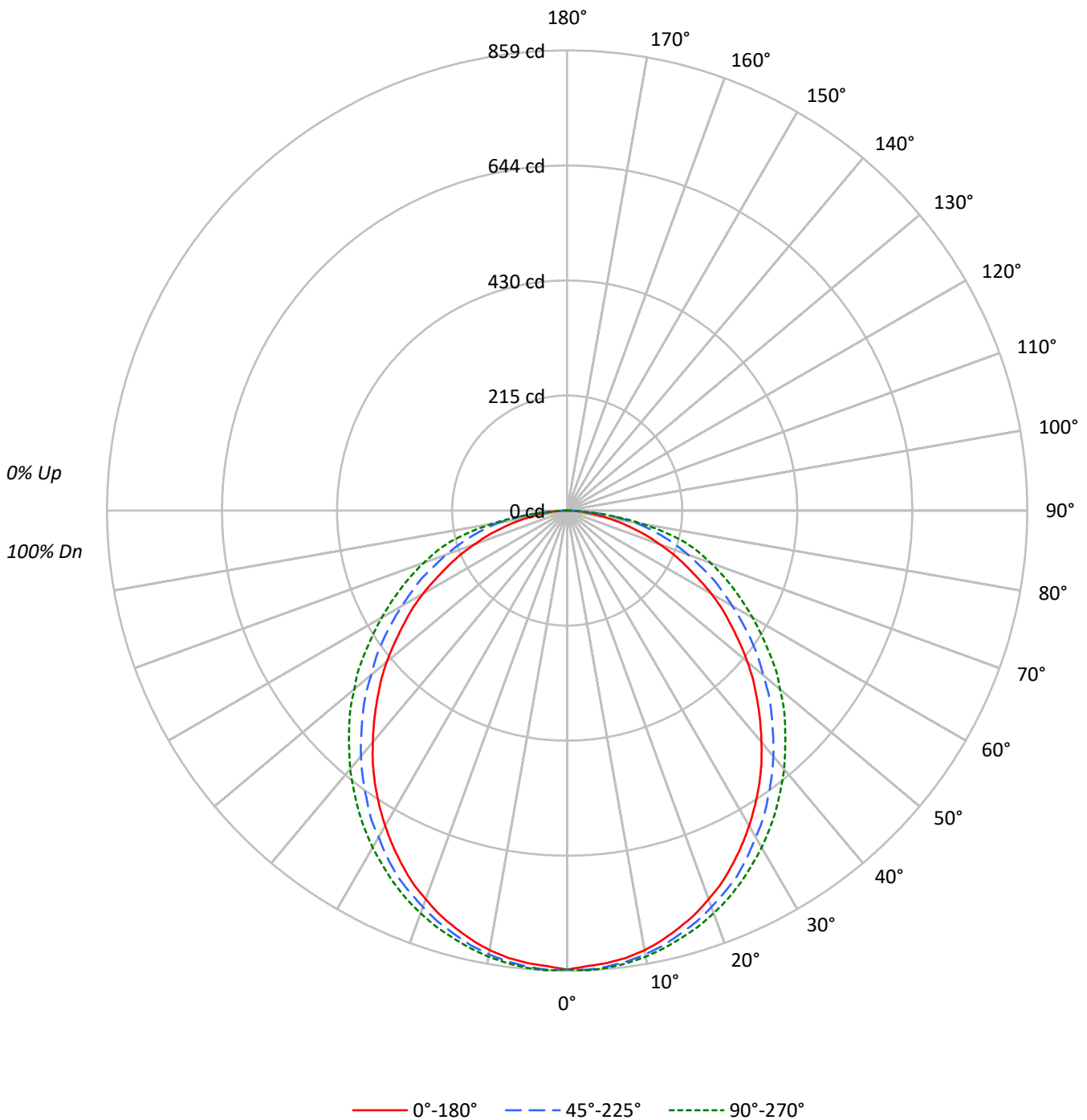
Input Watts (W): 17.763  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2306	2306	2306
5°	2290	2308	2314
10°	2277	2299	2311
15°	2247	2278	2300
20°	2211	2255	2291
25°	2166	2233	2276
30°	2111	2187	2257
35°	2052	2147	2235
40°	1983	2105	2214
45°	1910	2055	2191
50°	1840	1999	2171
55°	1753	1962	2156
60°	1675	1915	2150
65°	1563	1904	2174
70°	1440	1888	2238
75°	1299	1914	2355
80°	1124	1971	2213
85°	929	1652	1652



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.0	3.4
10°-20°	230.6	9.6
20°-30°	345.0	14.4
30°-40°	408.6	17.1
40°-50°	416.4	17.4
50°-60°	373.2	15.6
60°-70°	292.2	12.2
70°-80°	188.4	7.9
80°-90°	55.6	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°	656.6	27.5
0°-40°	1065.2	44.5
0°-60°	1854.7	77.6
0°-90°	2391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2391.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	848	850	854	856	857	80
15°	807	811	818	824	826	227
25°	730	736	752	762	766	336
35°	625	632	654	674	680	390
45°	502	513	540	568	576	388
55°	374	386	418	447	460	335
65°	245	260	299	328	341	244
75°	125	144	184	215	226	134
85°	30	41	54	54	54	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	856.8	856.8	856.8	856.8	856.8
2.5°	851.2	853.4	857.9	859.0	859.0
5°	847.8	850.1	854.5	855.7	856.8
7.5°	842.3	843.4	849.0	851.2	852.3
10°	833.3	835.6	841.2	844.5	845.6
12.5°	821.1	824.4	831.1	835.6	836.7
15°	806.6	811.0	817.7	824.4	825.5
17.5°	791.0	795.4	804.3	812.1	814.4
20°	772.0	777.6	787.6	796.5	799.9
22.5°	753.0	757.5	769.8	780.9	784.3
25°	729.6	736.3	751.9	761.9	766.4
27.5°	705.1	712.9	728.5	741.9	746.3
30°	679.4	687.2	703.9	720.7	726.2
32.5°	652.6	661.5	681.6	698.4	703.9
35°	624.7	632.5	653.7	673.8	680.5
37.5°	595.7	602.4	627.0	648.2	654.8
40°	564.5	573.4	599.1	623.6	630.3
42.5°	533.2	543.3	568.9	595.7	602.4
45°	502.0	513.2	539.9	567.8	575.6
47.5°	471.9	480.8	510.9	537.7	548.9
50°	439.5	448.5	477.5	507.6	518.7
52.5°	406.1	418.3	449.6	478.6	492.0
55°	373.7	386.0	418.3	447.3	459.6
57.5°	343.6	353.6	387.1	417.2	429.5
60°	311.2	320.2	355.9	388.2	399.4
62.5°	276.7	290.1	326.9	357.0	370.4
65°	245.4	259.9	299.0	328.0	341.4
67.5°	216.4	229.8	267.7	299.0	313.5
70°	183.0	200.8	239.9	271.1	284.5
72.5°	156.2	171.8	212.0	243.2	257.7
75°	124.9	143.9	184.1	215.3	226.5
77.5°	99.3	118.3	156.2	180.7	186.3
80°	72.5	91.5	127.2	139.4	142.8
82.5°	49.1	66.9	91.5	94.8	95.9
85°	30.1	41.3	53.5	53.5	53.5
87.5°	14.5	16.7	19.0	17.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)