

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: P277191

Luminaire Tested: **22CZ2-24HE-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277191  
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-L93050-W2A1-U-5000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2121.0 lumens  
Efficiency: N/A  
Efficacy: 115.8 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

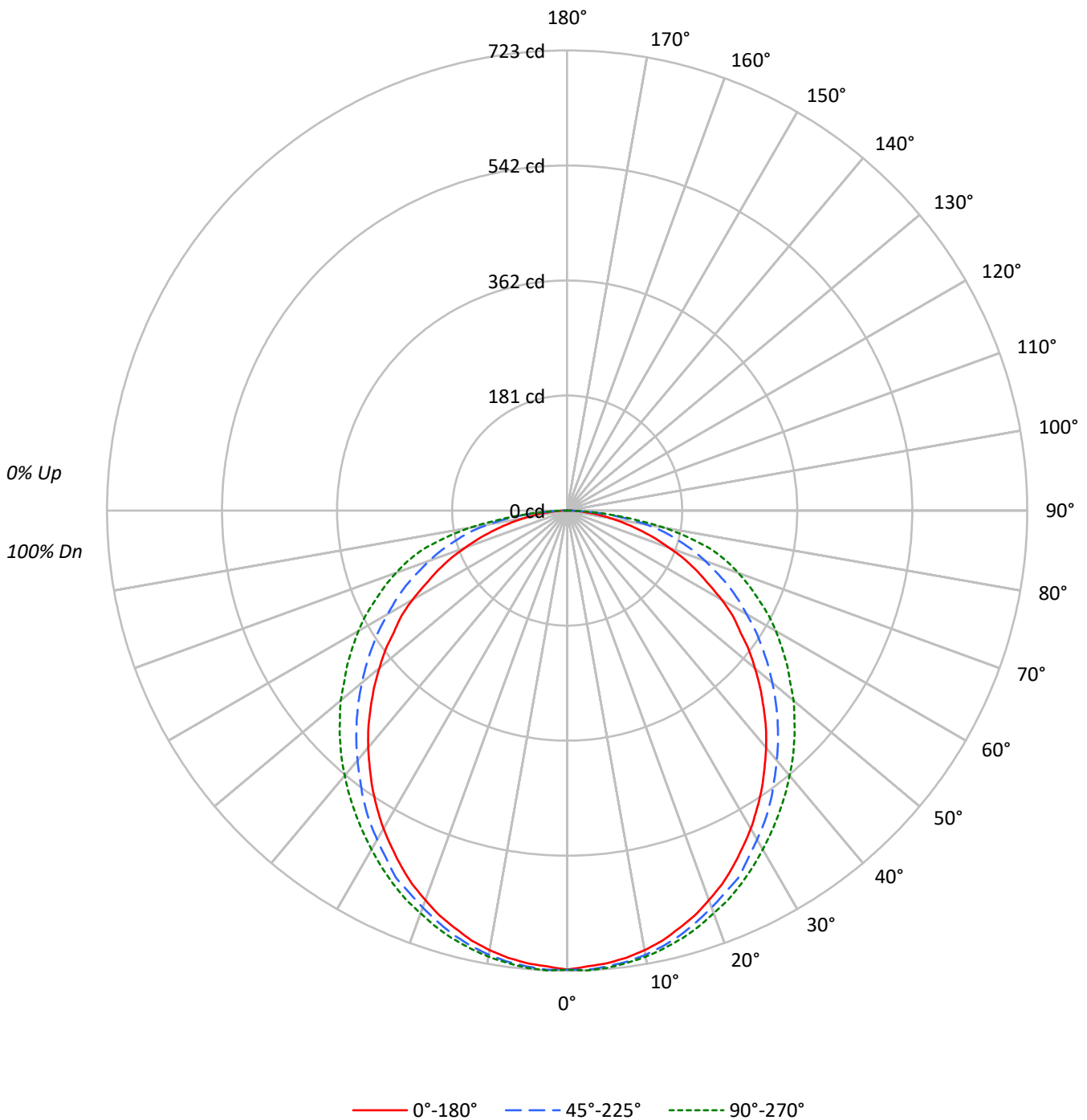
Input Watts (W): 18.315234  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1941	1941	1941
5°	1928	1942	1948
10°	1916	1937	1945
15°	1893	1922	1939
20°	1865	1901	1928
25°	1831	1890	1921
30°	1794	1855	1910
35°	1752	1831	1906
40°	1709	1800	1910
45°	1660	1780	1922
50°	1612	1761	1944
55°	1557	1753	1978
60°	1511	1752	2039
65°	1435	1781	2113
70°	1338	1815	2250
75°	1226	1878	2431
80°	1068	1957	2394
85°	936	1741	1902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.2	3.2
10°-20°	194.3	9.2
20°-30°	291.6	13.7
30°-40°	348.5	16.4
40°-50°	362.4	17.1
50°-60°	335.8	15.8
60°-70°	275.5	13.0
70°-80°	186.2	8.8
80°-90°	58.5	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°	554.1	26.1
0°-40°	902.6	42.6
0°-60°	1600.8	75.5
0°-90°	2121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2121.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	714	715	719	720	721	68
15°	679	683	690	694	696	192
25°	617	622	637	644	647	284
35°	533	541	557	574	580	333
45°	436	445	468	495	505	337
55°	332	342	374	407	422	298
65°	225	238	280	316	332	223
75°	118	138	181	217	234	125
85°	30	42	56	63	62	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	721.2	721.2	721.2	721.2	721.2
2.5°	717.0	719.1	722.2	723.3	723.3
5°	713.9	714.9	719.1	720.1	721.2
7.5°	708.7	710.7	714.9	716.0	717.0
10°	701.3	703.4	708.7	710.7	711.8
12.5°	692.0	694.0	700.3	703.4	704.5
15°	679.4	682.6	689.9	694.0	696.1
17.5°	666.9	670.0	677.3	683.6	685.7
20°	651.3	658.6	663.8	672.1	673.2
22.5°	635.6	639.8	649.2	657.5	661.7
25°	616.8	622.0	636.6	643.9	647.1
27.5°	597.0	604.3	615.8	627.2	631.4
30°	577.2	582.4	597.0	610.5	614.7
32.5°	555.2	562.5	578.2	591.8	598.0
35°	533.3	540.6	557.3	574.0	580.3
37.5°	509.3	517.7	534.4	554.2	562.5
40°	486.4	492.6	512.4	536.4	543.8
42.5°	462.3	469.7	490.5	516.6	525.0
45°	436.3	444.6	467.6	494.7	505.1
47.5°	411.2	419.6	444.6	471.7	484.3
50°	385.1	395.6	420.6	451.9	464.4
52.5°	360.1	369.5	397.6	430.0	441.5
55°	331.9	342.3	373.6	407.0	421.6
57.5°	308.9	316.2	350.7	385.1	399.7
60°	280.7	290.1	325.6	362.2	378.9
62.5°	250.5	266.1	302.7	340.2	356.9
65°	225.4	238.0	279.7	316.2	331.9
67.5°	199.3	212.9	253.6	292.2	310.0
70°	170.1	187.9	230.7	269.3	286.0
72.5°	144.0	162.8	206.6	244.2	262.0
75°	117.9	137.8	180.6	217.1	233.8
77.5°	92.9	114.8	156.6	184.7	195.2
80°	68.9	89.8	126.3	146.1	154.5
82.5°	48.0	65.8	92.9	103.3	105.4
85°	30.3	41.7	56.4	62.6	61.6
87.5°	13.6	16.7	20.9	23.0	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)