

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: P276821

Luminaire Tested: **24CZ2-40HE-RDP-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276821  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40HE-RDP-UNV-L93050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2420.4 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

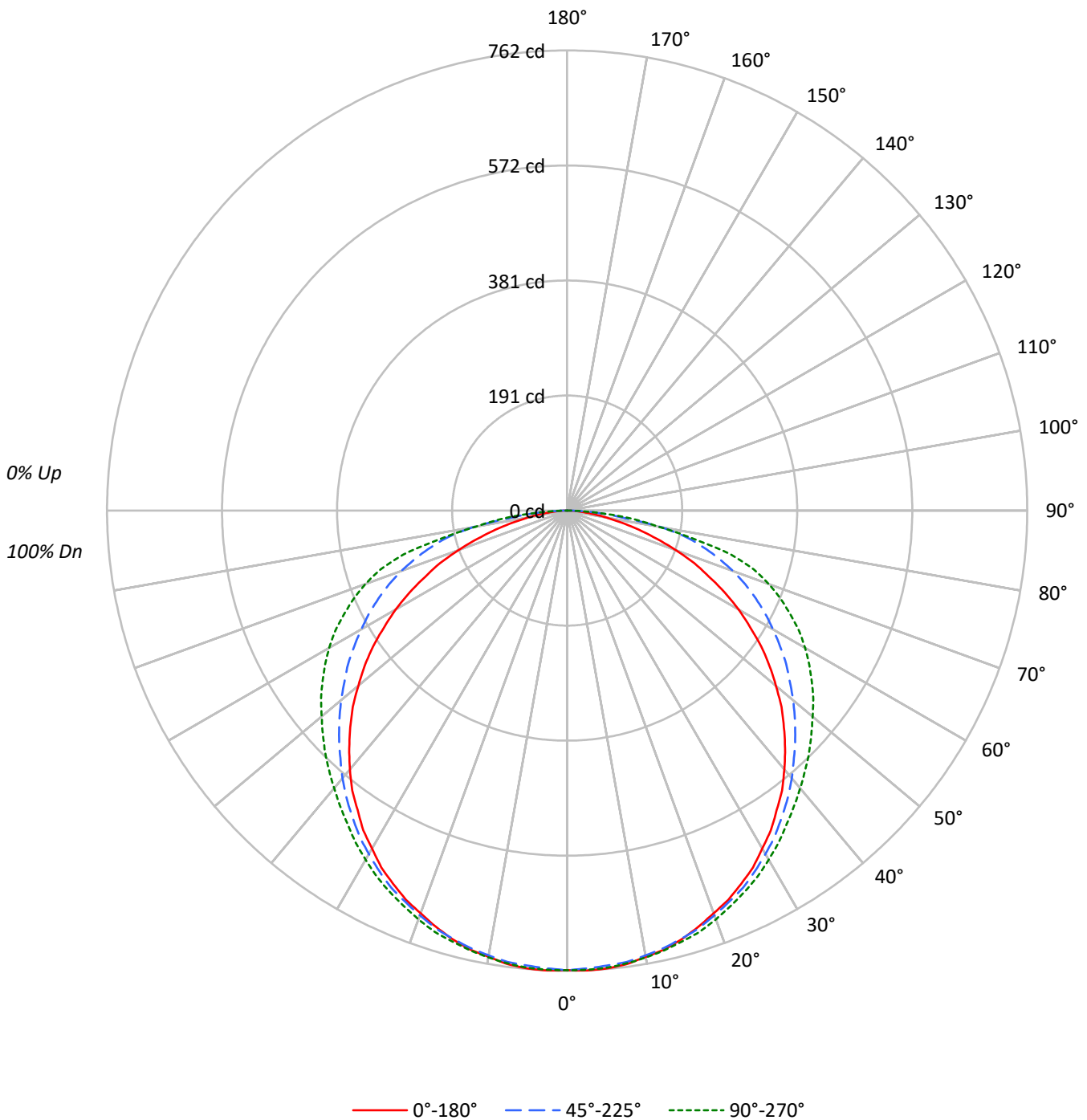
Input Watts (W): 29.459424  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1024	1024	1024
5°	1028	1021	1026
10°	1025	1022	1027
15°	1023	1022	1028
20°	1016	1021	1031
25°	1012	1023	1034
30°	1003	1020	1037
35°	994	1018	1041
40°	983	1016	1054
45°	966	1016	1078
50°	945	1023	1111
55°	921	1039	1160
60°	882	1060	1224
65°	826	1097	1300
70°	751	1148	1398
75°	637	1211	1460
80°	502	1219	1182
85°	371	926	1037



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.2	3.0
10°-20°	207.8	8.6
20°-30°	317.8	13.1
30°-40°	388.5	16.1
40°-50°	414.0	17.1
50°-60°	395.9	16.4
60°-70°	335.3	13.9
70°-80°	225.4	9.3
80°-90°	63.6	2.6
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°	597.7	24.7
0°-40°	986.2	40.7
0°-60°	1796.1	74.2
0°-90°	2420.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2420.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	761	760	756	760	760	72
15°	735	735	734	740	738	207
25°	682	684	689	695	696	314
35°	605	610	620	632	634	379
45°	508	516	534	557	567	392
55°	393	407	443	478	495	350
65°	259	286	345	390	408	257
75°	122	167	233	272	281	131
85°	24	49	60	65	67	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	761.1	761.1	761.1	761.1	761.1
2.5°	762.3	762.3	758.7	761.1	761.1
5°	761.1	759.9	756.3	759.9	759.9
7.5°	757.5	756.3	753.9	757.5	756.3
10°	750.3	750.3	747.9	751.5	751.5
12.5°	744.3	743.1	741.9	746.7	745.5
15°	734.7	734.7	733.5	739.5	738.3
17.5°	722.7	723.9	725.1	729.9	731.1
20°	709.5	711.9	713.1	720.3	720.3
22.5°	697.5	698.7	701.1	708.3	708.3
25°	681.9	684.3	689.1	695.1	696.3
27.5°	666.3	667.5	673.5	681.9	683.1
30°	645.9	649.5	656.7	666.3	667.5
32.5°	627.9	631.5	639.9	649.5	651.9
35°	605.1	609.9	619.5	631.5	633.9
37.5°	584.7	588.3	600.3	613.5	617.1
40°	559.5	566.7	578.7	594.3	600.3
42.5°	534.2	541.4	555.9	576.3	583.5
45°	507.8	516.2	534.2	557.1	566.7
47.5°	481.4	491.0	511.4	537.8	548.6
50°	451.4	463.4	488.6	518.6	530.6
52.5°	422.6	437.0	464.6	498.2	513.8
55°	392.6	407.0	443.0	477.8	494.6
57.5°	359.0	378.2	417.8	457.4	475.4
60°	327.7	345.8	393.8	437.0	455.0
62.5°	294.1	318.1	369.8	415.4	433.4
65°	259.3	285.7	344.6	390.2	408.2
67.5°	228.1	256.9	319.3	365.0	383.0
70°	190.9	226.9	291.7	337.4	355.4
72.5°	156.1	195.7	262.9	307.3	324.1
75°	122.5	166.9	232.9	272.5	280.9
77.5°	91.2	138.1	201.7	218.5	212.5
80°	64.8	110.4	157.3	148.9	152.5
82.5°	42.0	84.0	97.2	110.4	114.1
85°	24.0	49.2	60.0	64.8	67.2
87.5°	10.8	18.0	24.0	24.0	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)