

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: P277038

Luminaire Tested: **24CZ2-40HE-RDP-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277038  
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-L92765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2288.6 lumens  
Efficiency: N/A  
Efficacy: 79.9 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

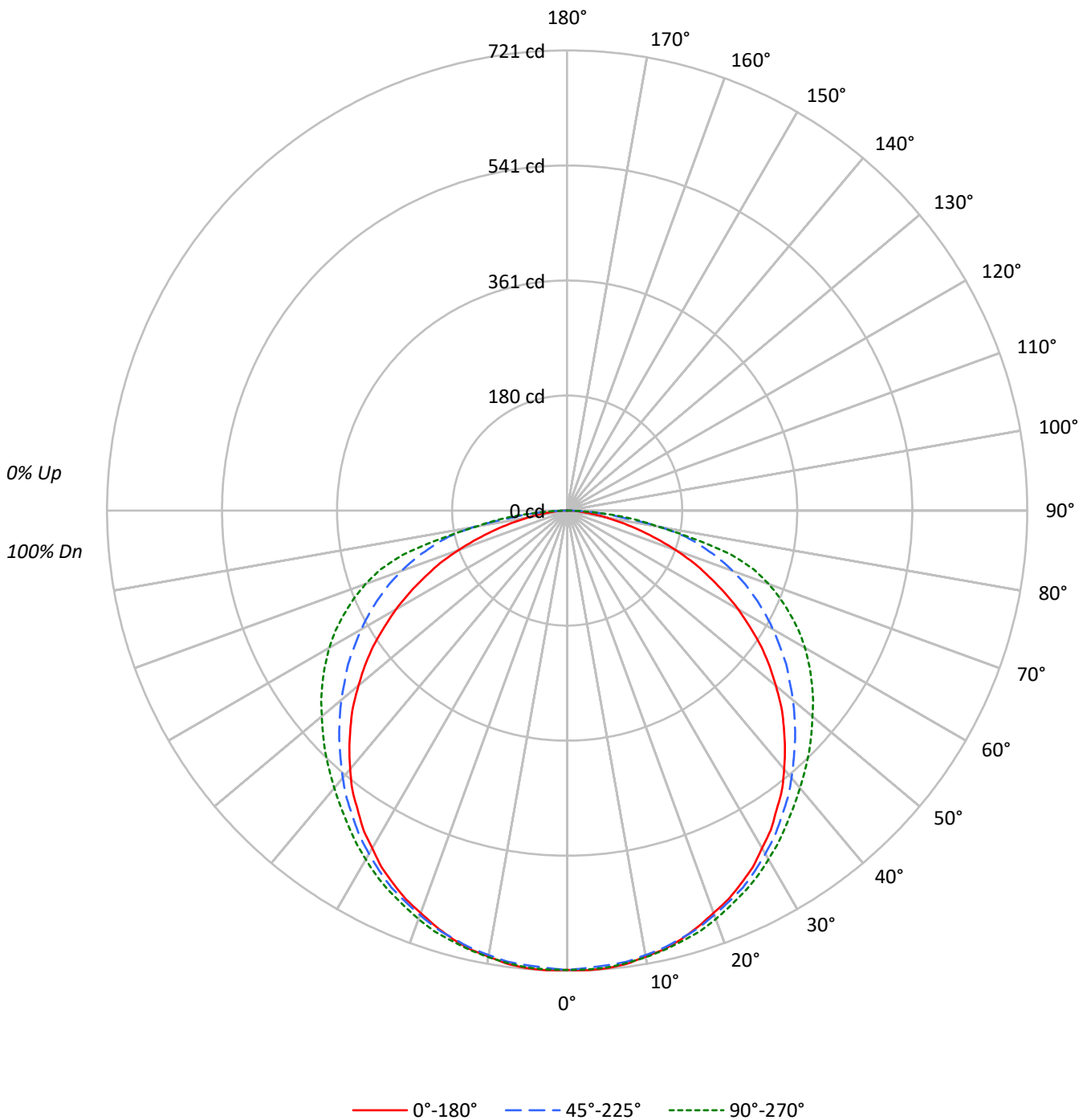
Input Watts (W): 28.644  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	68	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°	968	968	968
5°	972	966	971
10°	969	966	971
15°	968	966	972
20°	961	965	975
25°	957	967	977
30°	949	965	981
35°	940	962	985
40°	929	961	997
45°	914	961	1020
50°	893	967	1050
55°	871	983	1097
60°	834	1002	1158
65°	781	1037	1229
70°	710	1085	1322
75°	602	1145	1381
80°	475	1152	1117
85°	350	877	982



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.3	3.0
10°-20°	196.5	8.6
20°-30°	300.5	13.1
30°-40°	367.3	16.0
40°-50°	391.5	17.1
50°-60°	374.3	16.4
60°-70°	317.1	13.9
70°-80°	213.1	9.3
80°-90°	60.1	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°	565.2	24.7
0°-40°	932.5	40.7
0°-60°	1698.3	74.2
0°-90°	2288.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2288.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	720	720	720	720	720	
5°	720	719	715	719	719	68
15°	695	695	694	699	698	196
25°	645	647	652	657	658	297
35°	572	577	586	597	599	358
45°	480	488	505	527	536	370
55°	371	385	419	452	468	331
65°	245	270	326	369	386	243
75°	116	158	220	258	266	124
85°	23	46	57	61	64	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	719.7	719.7	719.7	719.7	719.7
2.5°	720.8	720.8	717.4	719.7	719.7
5°	719.7	718.6	715.1	718.6	718.6
7.5°	716.3	715.1	712.9	716.3	715.1
10°	709.5	709.5	707.2	710.6	710.6
12.5°	703.8	702.7	701.5	706.1	704.9
15°	694.7	694.7	693.6	699.3	698.1
17.5°	683.4	684.5	685.6	690.2	691.3
20°	670.9	673.1	674.3	681.1	681.1
22.5°	659.5	660.7	662.9	669.7	669.7
25°	644.8	647.0	651.6	657.3	658.4
27.5°	630.0	631.1	636.8	644.8	645.9
30°	610.7	614.1	620.9	630.0	631.1
32.5°	593.7	597.1	605.0	614.1	616.4
35°	572.1	576.7	585.7	597.1	599.4
37.5°	552.8	556.2	567.6	580.1	583.5
40°	529.0	535.8	547.1	561.9	567.6
42.5°	505.1	512.0	525.6	544.9	551.7
45°	480.2	488.1	505.1	526.7	535.8
47.5°	455.2	464.3	483.6	508.6	518.8
50°	426.8	438.2	462.0	490.4	501.7
52.5°	399.6	413.2	439.3	471.1	485.8
55°	371.2	384.8	418.9	451.8	467.7
57.5°	339.4	357.6	395.0	432.5	449.5
60°	309.9	326.9	372.3	413.2	430.2
62.5°	278.1	300.8	349.6	392.8	409.8
65°	245.2	270.2	325.8	368.9	386.0
67.5°	215.7	242.9	302.0	345.1	362.1
70°	180.5	214.5	275.8	319.0	336.0
72.5°	147.6	185.0	248.6	290.6	306.5
75°	115.8	157.8	220.2	257.7	265.6
77.5°	86.3	130.5	190.7	206.6	200.9
80°	61.3	104.4	148.7	140.8	144.2
82.5°	39.7	79.5	91.9	104.4	107.8
85°	22.7	46.5	56.8	61.3	63.6
87.5°	10.2	17.0	22.7	22.7	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)