

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: P277037

Luminaire Tested: **24CZ2-40HE-RDP-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277037  
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-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2217.3 lumens  
Efficiency: N/A  
Efficacy: 78.2 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

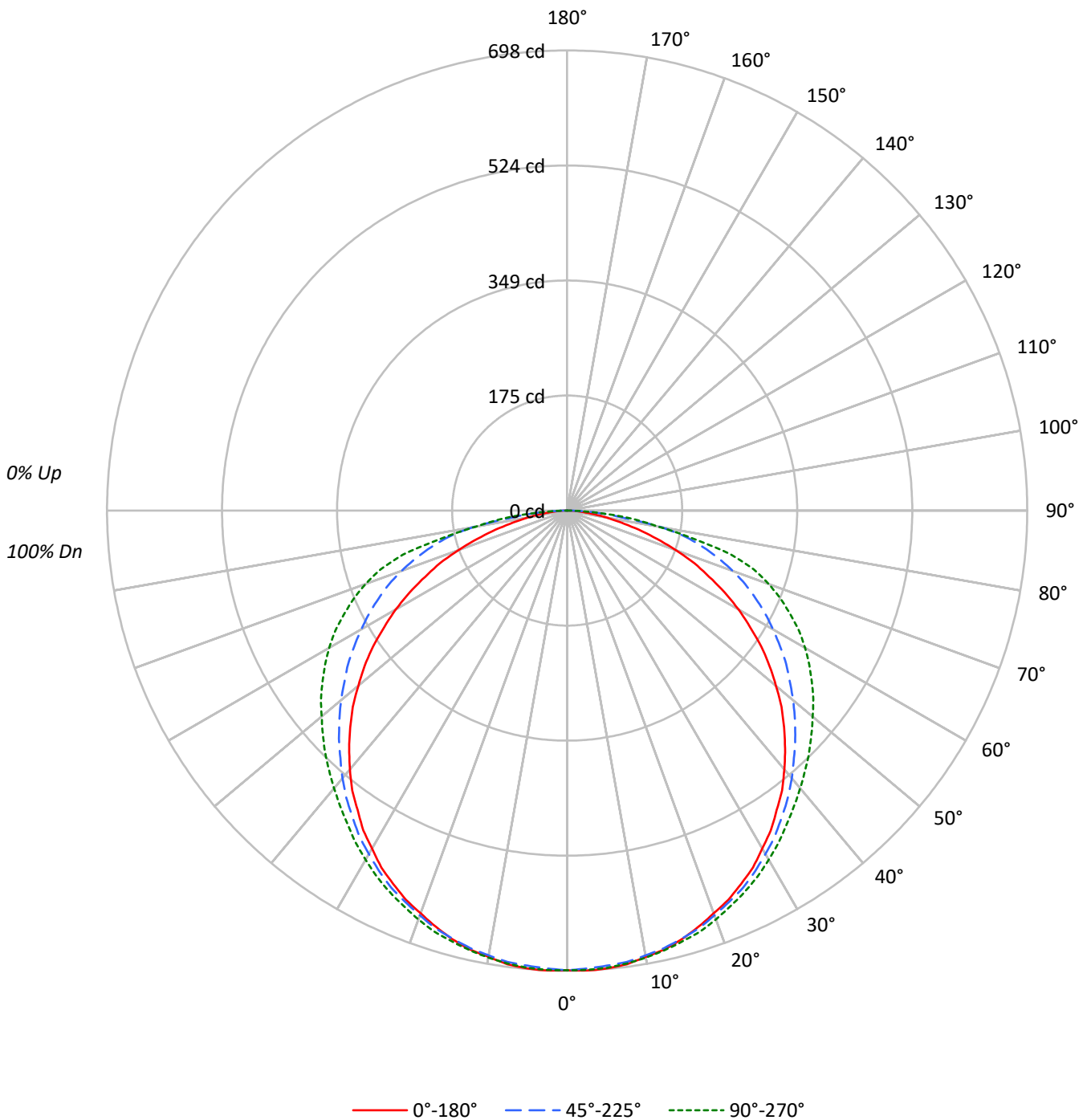
Input Watts (W): 28.365  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	938	938	938
5°	942	936	940
10°	939	936	941
15°	938	936	942
20°	931	935	945
25°	927	937	947
30°	919	935	950
35°	910	932	954
40°	900	931	966
45°	885	931	988
50°	866	937	1018
55°	844	952	1063
60°	808	971	1122
65°	756	1005	1190
70°	688	1052	1281
75°	583	1109	1338
80°	460	1117	1082
85°	340	849	951



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.1	3.0
10°-20°	190.4	8.6
20°-30°	291.1	13.1
30°-40°	355.9	16.0
40°-50°	379.3	17.1
50°-60°	362.6	16.4
60°-70°	307.2	13.9
70°-80°	206.5	9.3
80°-90°	58.2	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°	547.6	24.7
0°-40°	903.5	40.7
0°-60°	1645.4	74.2
0°-90°	2217.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2217.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	697	696	693	696	696	66
15°	673	673	672	678	676	190
25°	625	627	631	637	638	288
35°	554	559	568	578	581	347
45°	465	473	489	510	519	359
55°	360	373	406	438	453	320
65°	238	262	316	357	374	236
75°	112	153	213	250	257	120
85°	22	45	55	59	62	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	697.3	697.3	697.3	697.3	697.3
2.5°	698.4	698.4	695.1	697.3	697.3
5°	697.3	696.2	692.9	696.2	696.2
7.5°	694.0	692.9	690.7	694.0	692.9
10°	687.4	687.4	685.2	688.5	688.5
12.5°	681.9	680.8	679.7	684.1	683.0
15°	673.1	673.1	672.0	677.5	676.4
17.5°	662.1	663.2	664.3	668.7	669.8
20°	650.0	652.2	653.3	659.9	659.9
22.5°	639.0	640.1	642.3	648.9	648.9
25°	624.7	626.9	631.3	636.8	637.9
27.5°	610.4	611.5	617.0	624.7	625.8
30°	591.7	595.0	601.6	610.4	611.5
32.5°	575.2	578.5	586.2	595.0	597.2
35°	554.3	558.7	567.5	578.5	580.7
37.5°	535.6	538.9	549.9	562.0	565.3
40°	512.5	519.1	530.1	544.4	549.9
42.5°	489.4	496.0	509.2	527.9	534.5
45°	465.2	472.9	489.4	510.3	519.1
47.5°	441.0	449.8	468.5	492.7	502.6
50°	413.5	424.5	447.6	475.1	486.1
52.5°	387.1	400.3	425.6	456.4	470.7
55°	359.6	372.8	405.8	437.7	453.1
57.5°	328.8	346.4	382.7	419.0	435.5
60°	300.2	316.7	360.7	400.3	416.8
62.5°	269.5	291.5	338.7	380.5	397.0
65°	237.6	261.8	315.6	357.4	373.9
67.5°	209.0	235.4	292.6	334.3	350.8
70°	174.9	207.9	267.3	309.0	325.5
72.5°	143.0	179.3	240.9	281.6	296.9
75°	112.2	152.9	213.4	249.7	257.4
77.5°	83.6	126.5	184.8	200.2	194.7
80°	59.4	101.2	144.1	136.4	139.7
82.5°	38.5	77.0	89.1	101.2	104.5
85°	22.0	45.1	55.0	59.4	61.6
87.5°	9.9	16.5	22.0	22.0	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)