

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: P277138

Luminaire Tested: **24CZ2-45-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277138  
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: 24CZ2-45-RDP-UNV-L92765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2612.4 lumens  
Efficiency: N/A  
Efficacy: 73.3 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

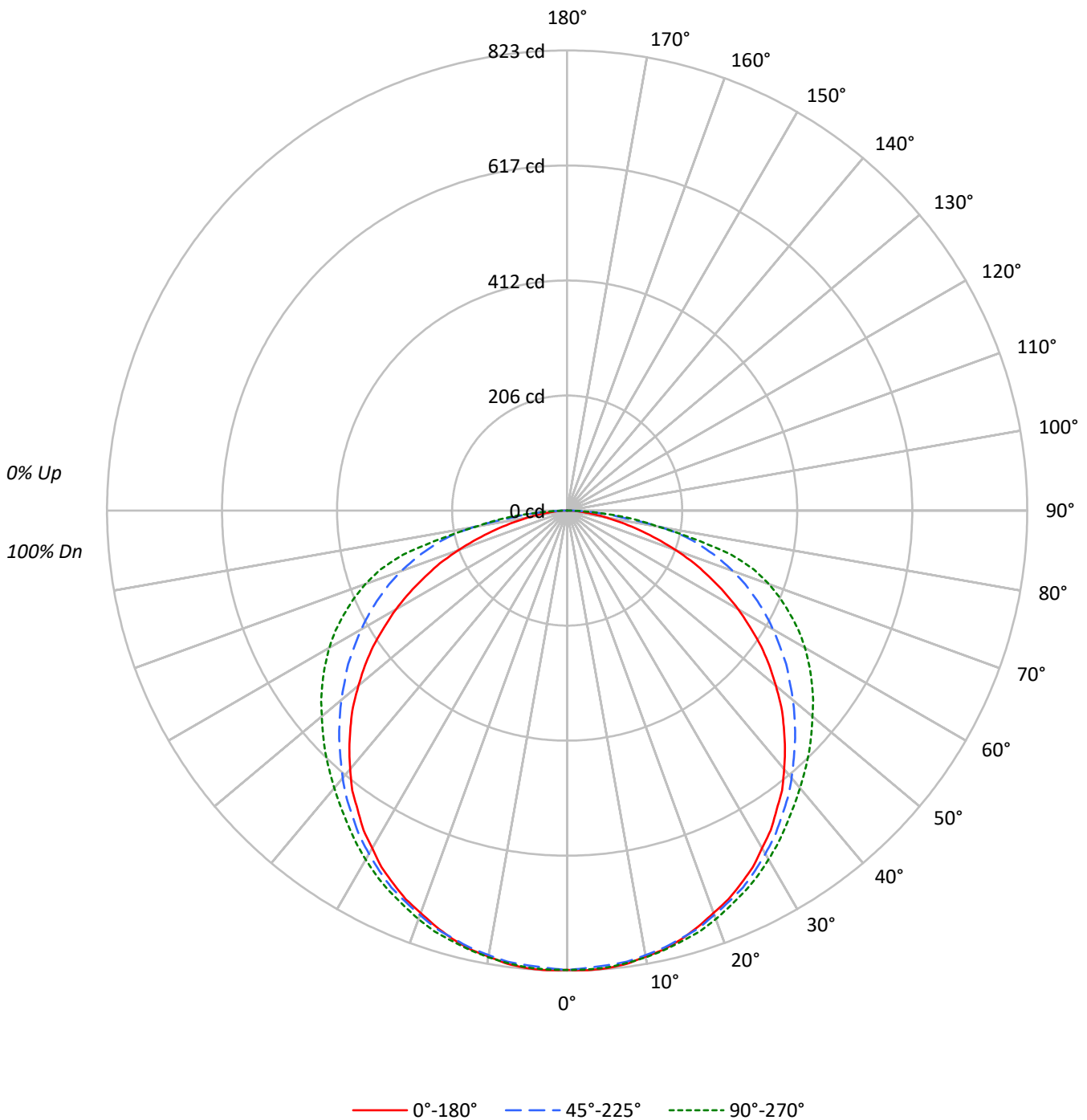
Input Watts (W): 35.619  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1105	1105	1105
5°	1110	1103	1108
10°	1107	1103	1108
15°	1105	1103	1110
20°	1097	1102	1113
25°	1093	1104	1116
30°	1083	1101	1119
35°	1073	1098	1124
40°	1061	1097	1138
45°	1043	1097	1164
50°	1020	1104	1199
55°	994	1122	1252
60°	952	1144	1322
65°	891	1184	1403
70°	810	1239	1509
75°	687	1307	1576
80°	542	1315	1275
85°	400	1000	1121



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.9	3.0
10°-20°	224.3	8.6
20°-30°	343.0	13.1
30°-40°	419.3	16.0
40°-50°	446.9	17.1
50°-60°	427.3	16.4
60°-70°	361.9	13.9
70°-80°	243.3	9.3
80°-90°	68.6	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
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0°-30°	645.2	24.7
0°-40°	1064.5	40.7
0°-60°	1938.6	74.2
0°-90°	2612.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2612.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	822	822	822	822	822	
5°	822	820	816	820	820	78
15°	793	793	792	798	797	224
25°	736	739	744	750	752	339
35°	653	658	669	682	684	409
45°	548	557	577	601	612	423
55°	424	439	478	516	534	377
65°	280	308	372	421	441	278
75°	132	180	251	294	303	142
85°	26	53	65	70	73	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	821.5	821.5	821.5	821.5	821.5
2.5°	822.8	822.8	818.9	821.5	821.5
5°	821.5	820.2	816.3	820.2	820.2
7.5°	817.6	816.3	813.8	817.6	816.3
10°	809.9	809.9	807.3	811.2	811.2
12.5°	803.4	802.1	800.8	806.0	804.7
15°	793.0	793.0	791.7	798.2	796.9
17.5°	780.1	781.4	782.7	787.8	789.1
20°	765.8	768.4	769.7	777.5	777.5
22.5°	752.9	754.2	756.7	764.5	764.5
25°	736.0	738.6	743.8	750.3	751.6
27.5°	719.2	720.5	726.9	736.0	737.3
30°	697.1	701.0	708.8	719.2	720.5
32.5°	677.7	681.6	690.7	701.0	703.6
35°	653.1	658.3	668.6	681.6	684.2
37.5°	631.1	634.9	647.9	662.1	666.0
40°	603.8	611.6	624.6	641.4	647.9
42.5°	576.6	584.4	600.0	622.0	629.8
45°	548.1	557.2	576.6	601.2	611.6
47.5°	519.6	530.0	552.0	580.5	592.2
50°	487.2	500.2	527.4	559.8	572.7
52.5°	456.1	471.7	501.5	537.8	554.6
55°	423.7	439.3	478.1	515.7	533.9
57.5°	387.4	408.2	450.9	493.7	513.1
60°	353.8	373.2	425.0	471.7	491.1
62.5°	317.5	343.4	399.1	448.3	467.8
65°	279.9	308.4	371.9	421.1	440.6
67.5°	246.2	277.3	344.7	393.9	413.4
70°	206.0	244.9	314.9	364.1	383.6
72.5°	168.5	211.2	283.8	331.7	349.9
75°	132.2	180.1	251.4	294.1	303.2
77.5°	98.5	149.0	217.7	235.8	229.4
80°	70.0	119.2	169.7	160.7	164.6
82.5°	45.4	90.7	105.0	119.2	123.1
85°	25.9	53.1	64.8	70.0	72.6
87.5°	11.7	19.4	25.9	25.9	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)