

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: P276909

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276909  
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: 24CZ2-45HE-RDP-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2618.2 lumens  
Efficiency: N/A  
Efficacy: 83.3 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

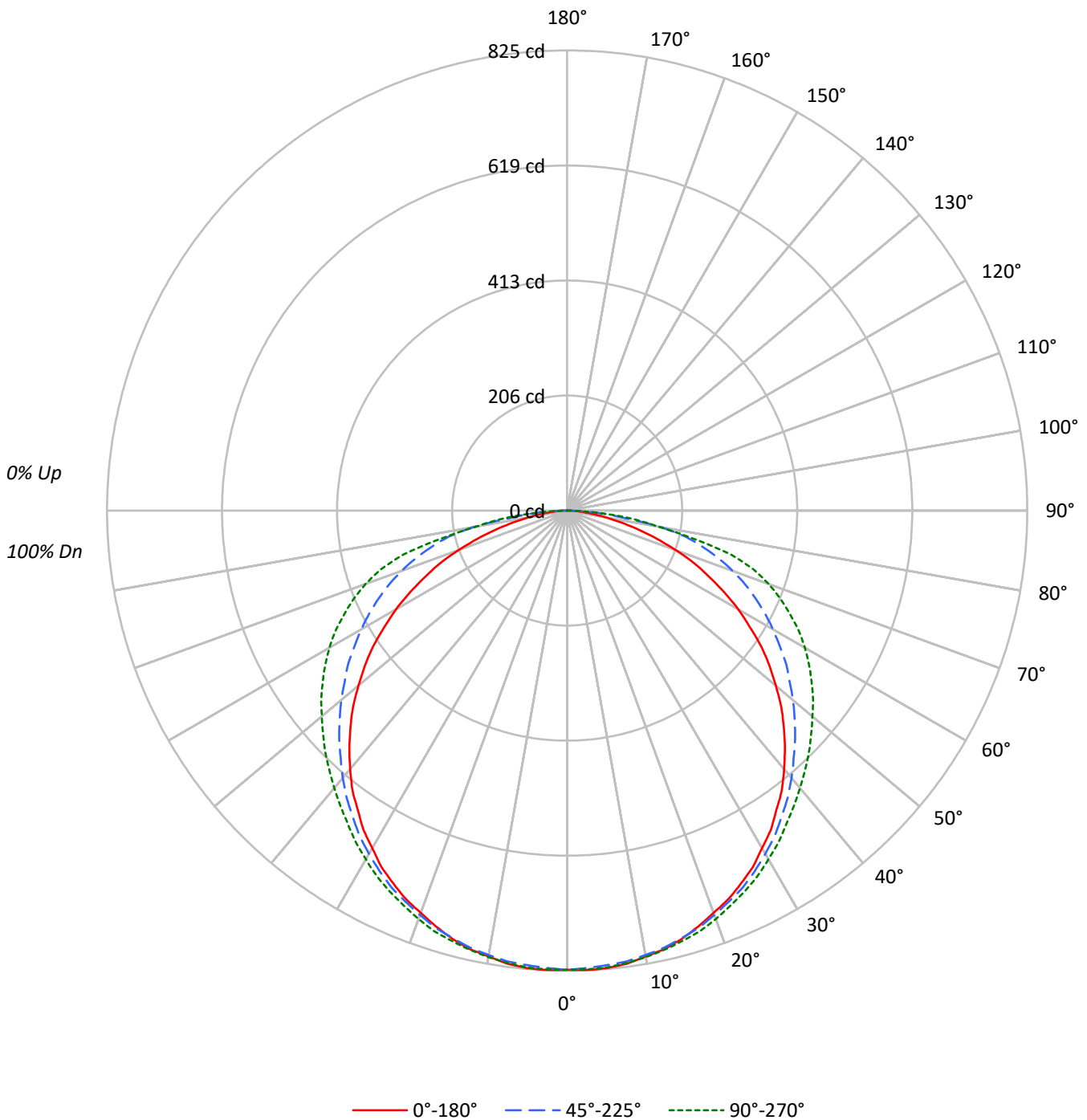
Input Watts (W): 31.434  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1108	1108	1108
5°	1112	1105	1110
10°	1109	1105	1111
15°	1107	1105	1113
20°	1099	1105	1116
25°	1095	1107	1118
30°	1086	1104	1122
35°	1075	1101	1126
40°	1063	1099	1140
45°	1045	1100	1166
50°	1022	1106	1202
55°	996	1124	1255
60°	954	1146	1324
65°	893	1187	1406
70°	812	1242	1512
75°	689	1310	1580
80°	543	1318	1278
85°	401	1002	1122



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	3.0
10°-20°	224.8	8.6
20°-30°	343.7	13.1
30°-40°	420.2	16.0
40°-50°	447.8	17.1
50°-60°	428.2	16.4
60°-70°	362.7	13.9
70°-80°	243.8	9.3
80°-90°	68.8	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°	646.6	24.7
0°-40°	1066.8	40.7
0°-60°	1942.9	74.2
0°-90°	2618.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2618.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	823	822	818	822	822	78
15°	795	795	794	800	799	224
25°	738	740	745	752	753	340
35°	654	660	670	683	686	410
45°	549	558	578	603	613	424
55°	425	440	479	517	535	378
65°	280	309	373	422	442	278
75°	132	180	252	295	304	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°	823.3	823.3	823.3	823.3	823.3
2.5°	824.6	824.6	820.7	823.3	823.3
5°	823.3	822.0	818.1	822.0	822.0
7.5°	819.4	818.1	815.5	819.4	818.1
10°	811.6	811.6	809.0	812.9	812.9
12.5°	805.2	803.9	802.6	807.7	806.5
15°	794.8	794.8	793.5	800.0	798.7
17.5°	781.8	783.1	784.4	789.6	790.9
20°	767.5	770.1	771.4	779.2	779.2
22.5°	754.5	755.8	758.4	766.2	766.2
25°	737.6	740.2	745.4	751.9	753.2
27.5°	720.7	722.0	728.5	737.6	738.9
30°	698.7	702.6	710.4	720.7	722.0
32.5°	679.2	683.1	692.2	702.6	705.2
35°	654.5	659.7	670.1	683.1	685.7
37.5°	632.4	636.3	649.3	663.6	667.5
40°	605.2	613.0	625.9	642.8	649.3
42.5°	577.9	585.7	601.3	623.3	631.1
45°	549.3	558.4	577.9	602.6	613.0
47.5°	520.8	531.1	553.2	581.8	593.5
50°	488.3	501.3	528.5	561.0	574.0
52.5°	457.1	472.7	502.6	538.9	555.8
55°	424.7	440.2	479.2	516.9	535.0
57.5°	388.3	409.1	451.9	494.8	514.3
60°	354.5	374.0	426.0	472.7	492.2
62.5°	318.2	344.1	400.0	449.3	468.8
65°	280.5	309.1	372.7	422.1	441.5
67.5°	246.7	277.9	345.4	394.8	414.3
70°	206.5	245.4	315.6	364.9	384.4
72.5°	168.8	211.7	284.4	332.4	350.6
75°	132.5	180.5	251.9	294.8	303.9
77.5°	98.7	149.3	218.2	236.4	229.9
80°	70.1	119.5	170.1	161.0	164.9
82.5°	45.5	90.9	105.2	119.5	123.4
85°	26.0	53.2	64.9	70.1	72.7
87.5°	11.7	19.5	26.0	26.0	24.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)