

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: P276912

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276912  
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-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2848.5 lumens  
Efficiency: N/A  
Efficacy: 89.6 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

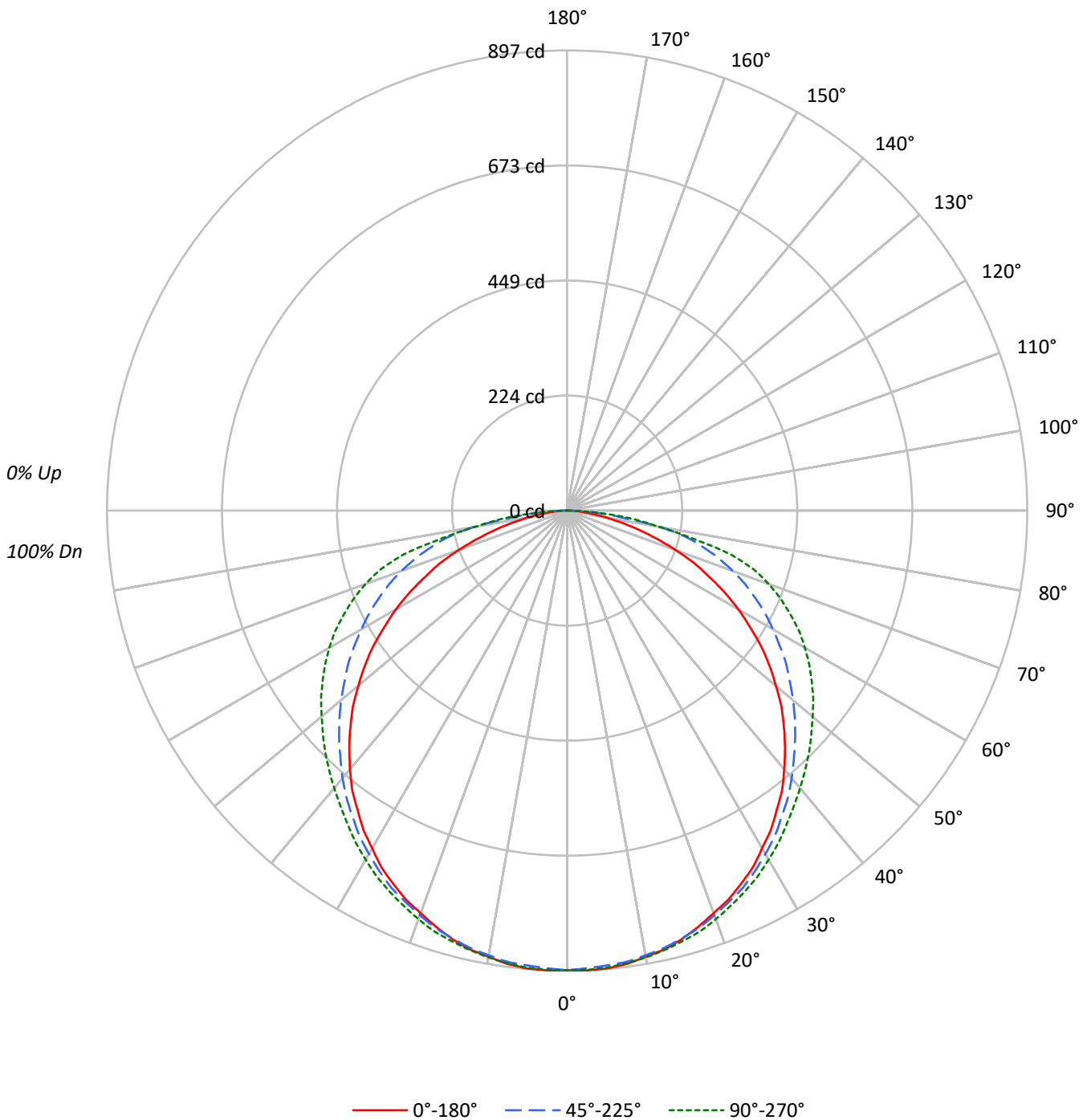
Input Watts (W): 31.806  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1205	1205	1205
5°	1210	1202	1208
10°	1206	1203	1208
15°	1204	1203	1210
20°	1196	1202	1214
25°	1191	1204	1217
30°	1181	1201	1221
35°	1170	1197	1225
40°	1156	1196	1241
45°	1137	1196	1269
50°	1112	1204	1307
55°	1084	1223	1365
60°	1038	1247	1441
65°	972	1291	1529
70°	884	1351	1645
75°	749	1425	1719
80°	591	1434	1390
85°	437	1090	1221



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.0	3.0
10°-20°	244.5	8.6
20°-30°	374.0	13.1
30°-40°	457.2	16.0
40°-50°	487.3	17.1
50°-60°	465.9	16.4
60°-70°	394.7	13.9
70°-80°	265.2	9.3
80°-90°	74.8	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°	703.5	24.7
0°-40°	1160.6	40.7
0°-60°	2113.8	74.2
0°-90°	2848.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2848.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	896	894	890	894	894	85
15°	865	865	863	870	869	244
25°	802	805	811	818	820	370
35°	712	718	729	743	746	446
45°	598	608	629	656	667	461
55°	462	479	521	562	582	411
65°	305	336	406	459	480	303
75°	144	196	274	321	331	154
85°	28	58	71	76	79	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	895.8	895.8	895.8	895.8	895.8
2.5°	897.2	897.2	892.9	895.8	895.8
5°	895.8	894.3	890.1	894.3	894.3
7.5°	891.5	890.1	887.3	891.5	890.1
10°	883.0	883.0	880.2	884.5	884.5
12.5°	876.0	874.6	873.2	878.8	877.4
15°	864.7	864.7	863.3	870.3	868.9
17.5°	850.5	852.0	853.4	859.0	860.4
20°	835.0	837.8	839.2	847.7	847.7
22.5°	820.9	822.3	825.1	833.6	833.6
25°	802.5	805.3	811.0	818.1	819.5
27.5°	784.1	785.6	792.6	802.5	803.9
30°	760.1	764.4	772.8	784.1	785.6
32.5°	738.9	743.2	753.1	764.4	767.2
35°	712.1	717.7	729.0	743.2	746.0
37.5°	688.1	692.3	706.4	722.0	726.2
40°	658.4	666.9	681.0	699.4	706.4
42.5°	628.7	637.2	654.2	678.2	686.7
45°	597.6	607.5	628.7	655.6	666.9
47.5°	566.6	577.9	601.9	633.0	645.7
50°	531.2	545.4	575.0	610.4	624.5
52.5°	497.3	514.3	546.8	586.3	604.7
55°	462.0	479.0	521.4	562.3	582.1
57.5°	422.4	445.1	491.7	538.3	559.5
60°	385.7	406.9	463.4	514.3	535.5
62.5°	346.2	374.4	435.2	488.9	510.0
65°	305.2	336.3	405.5	459.2	480.4
67.5°	268.4	302.4	375.8	429.5	450.7
70°	224.6	267.0	343.3	397.0	418.2
72.5°	183.7	230.3	309.4	361.7	381.5
75°	144.1	196.4	274.1	320.7	330.6
77.5°	107.4	162.5	237.4	257.1	250.1
80°	76.3	130.0	185.1	175.2	179.4
82.5°	49.5	98.9	114.4	130.0	134.2
85°	28.3	57.9	70.6	76.3	79.1
87.5°	12.7	21.2	28.3	28.3	26.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)