

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: P277052

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277052  
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-L92765-W2A1-U-6500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2708.5 lumens  
Efficiency: N/A  
Efficacy: 82.3 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

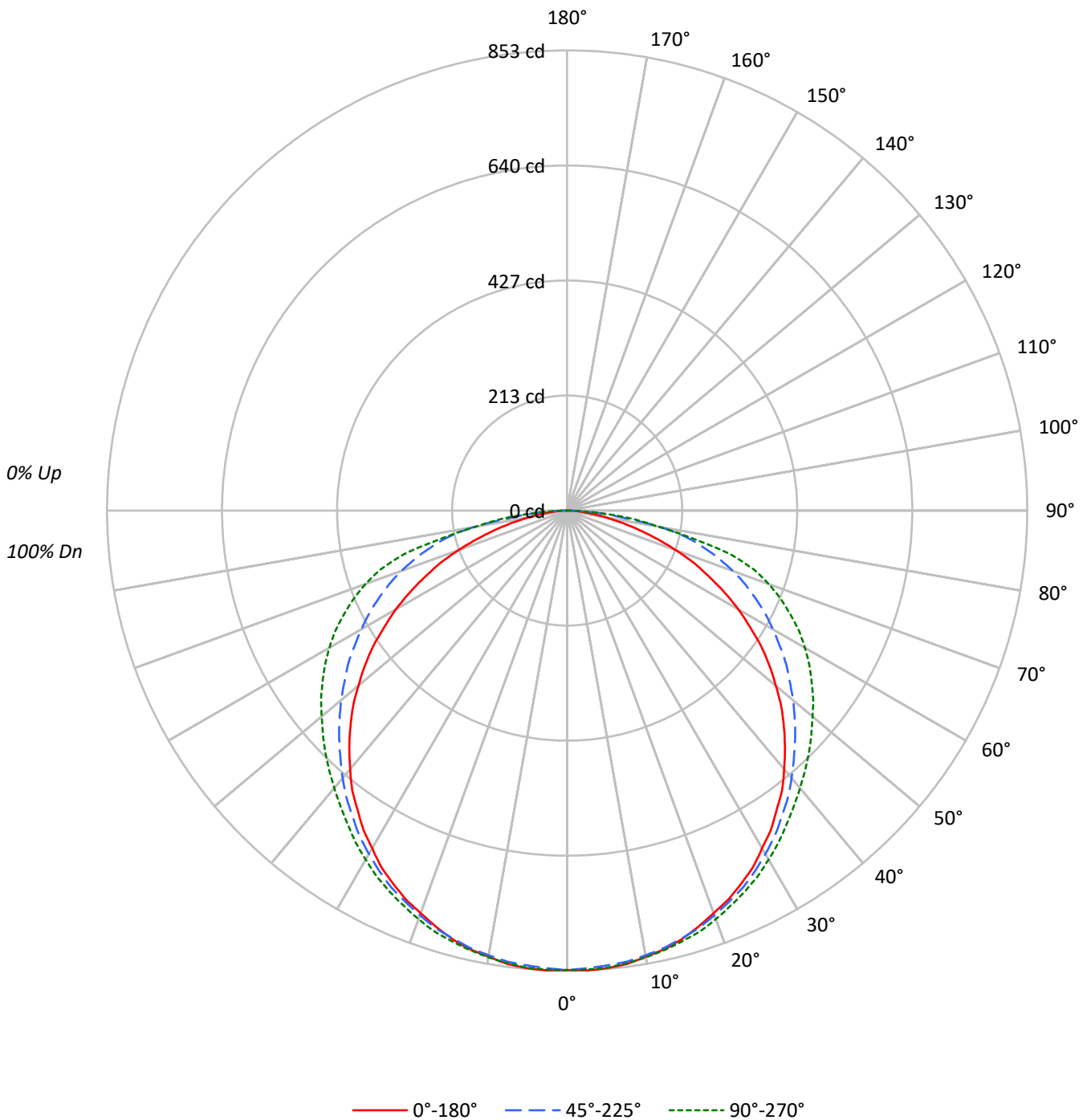
Input Watts (W): 32.922  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1146	1146	1146
5°	1150	1143	1149
10°	1147	1144	1149
15°	1145	1143	1151
20°	1137	1143	1154
25°	1133	1145	1157
30°	1123	1142	1161
35°	1112	1139	1165
40°	1100	1137	1180
45°	1081	1137	1207
50°	1057	1145	1243
55°	1031	1163	1298
60°	987	1186	1370
65°	924	1228	1454
70°	840	1284	1565
75°	712	1355	1634
80°	562	1364	1322
85°	415	1037	1161



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.8	3.0
10°-20°	232.5	8.6
20°-30°	355.6	13.1
30°-40°	434.7	16.0
40°-50°	463.3	17.1
50°-60°	443.0	16.4
60°-70°	375.3	13.9
70°-80°	252.2	9.3
80°-90°	71.1	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°	668.9	24.7
0°-40°	1103.6	40.7
0°-60°	2009.9	74.2
0°-90°	2708.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2708.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	852	852	852	852	852	
5°	852	850	846	850	850	81
15°	822	822	821	828	826	232
25°	763	766	771	778	779	352
35°	677	682	693	707	709	424
45°	568	578	598	623	634	438
55°	439	455	496	535	554	391
65°	290	320	386	437	457	288
75°	137	187	261	305	314	147
85°	27	55	67	72	75	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	851.7	851.7	851.7	851.7	851.7
2.5°	853.1	853.1	849.1	851.7	851.7
5°	851.7	850.4	846.4	850.4	850.4
7.5°	847.7	846.4	843.7	847.7	846.4
10°	839.7	839.7	837.0	841.0	841.0
12.5°	832.9	831.6	830.2	835.6	834.3
15°	822.2	822.2	820.8	827.6	826.2
17.5°	808.8	810.1	811.4	816.8	818.2
20°	794.0	796.7	798.0	806.1	806.1
22.5°	780.5	781.9	784.6	792.6	792.6
25°	763.1	765.8	771.1	777.9	779.2
27.5°	745.6	747.0	753.7	763.1	764.4
30°	722.8	726.8	734.9	745.6	747.0
32.5°	702.6	706.7	716.1	726.8	729.5
35°	677.1	682.5	693.2	706.7	709.3
37.5°	654.3	658.3	671.7	686.5	690.5
40°	626.0	634.1	647.5	665.0	671.7
42.5°	597.8	605.9	622.0	644.9	652.9
45°	568.3	577.7	597.8	623.4	634.1
47.5°	538.7	549.5	572.3	601.9	614.0
50°	505.1	518.6	546.8	580.4	593.8
52.5°	472.9	489.0	519.9	557.5	575.0
55°	439.3	455.4	495.7	534.7	553.5
57.5°	401.7	423.2	467.5	511.9	532.0
60°	366.8	386.9	440.6	489.0	509.2
62.5°	329.1	356.0	413.8	464.8	485.0
65°	290.2	319.7	385.6	436.6	456.8
67.5°	255.3	287.5	357.4	408.4	428.6
70°	213.6	253.9	326.5	377.5	397.7
72.5°	174.6	219.0	294.2	343.9	362.7
75°	137.0	186.7	260.6	305.0	314.4
77.5°	102.1	154.5	225.7	244.5	237.8
80°	72.5	123.6	176.0	166.6	170.6
82.5°	47.0	94.0	108.8	123.6	127.6
85°	26.9	55.1	67.2	72.5	75.2
87.5°	12.1	20.2	26.9	26.9	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)