

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: P276910

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276910  
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-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2693.9 lumens  
Efficiency: N/A  
Efficacy: 86.2 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

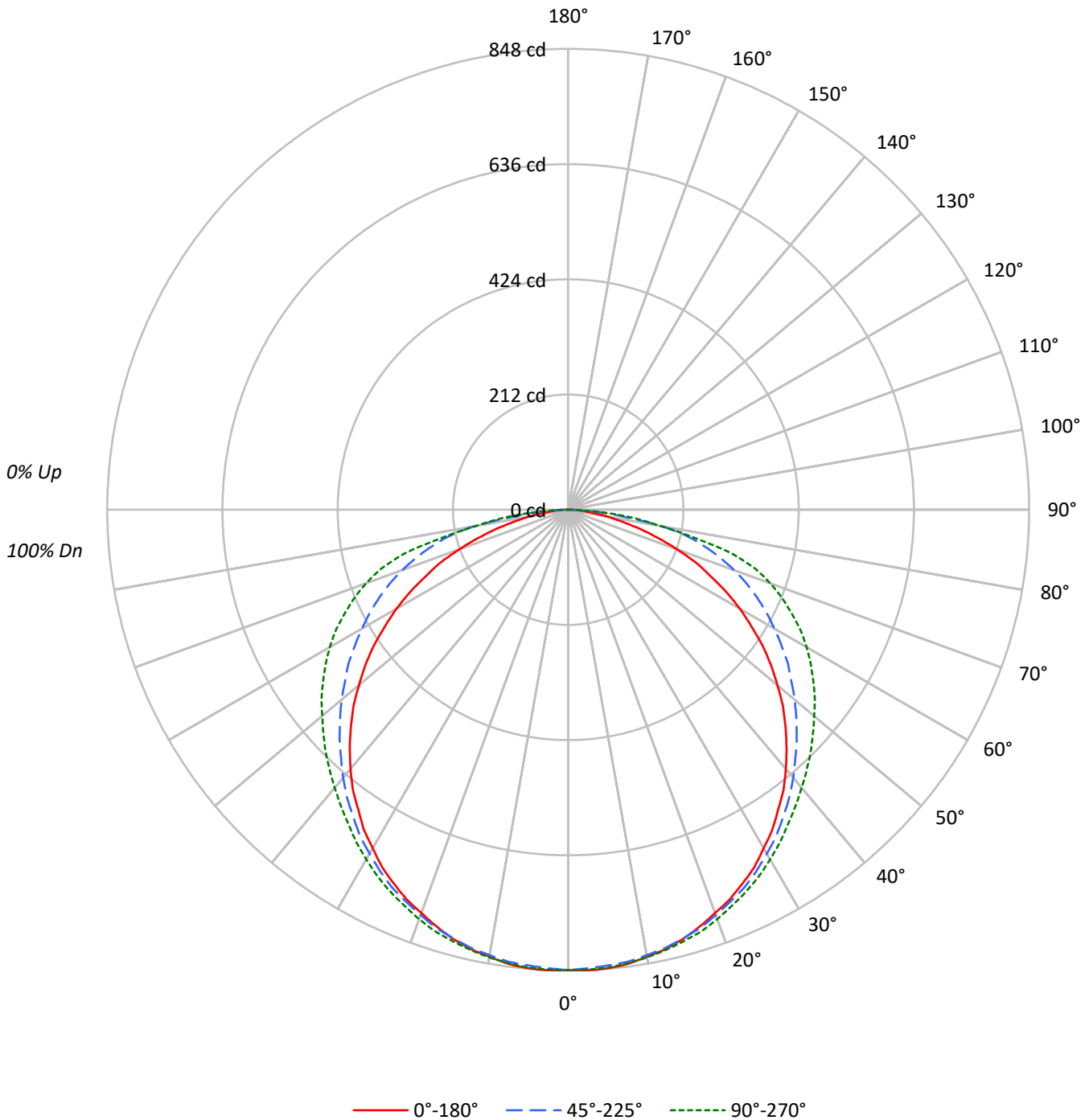
Input Watts (W): 31.248  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1140	1140	1140
5°	1144	1137	1142
10°	1141	1137	1143
15°	1139	1137	1145
20°	1131	1136	1148
25°	1127	1139	1151
30°	1117	1136	1154
35°	1106	1133	1159
40°	1094	1131	1173
45°	1075	1131	1200
50°	1052	1138	1236
55°	1025	1157	1291
60°	982	1179	1363
65°	919	1221	1446
70°	836	1277	1556
75°	709	1347	1626
80°	559	1356	1315
85°	412	1031	1155



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.4	3.0
10°-20°	231.3	8.6
20°-30°	353.7	13.1
30°-40°	432.3	16.0
40°-50°	460.8	17.1
50°-60°	440.6	16.4
60°-70°	373.2	13.9
70°-80°	250.8	9.3
80°-90°	70.7	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°	665.3	24.7
0°-40°	1097.7	40.7
0°-60°	1999.0	74.2
0°-90°	2693.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2693.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	847	846	842	846	846	80
15°	818	818	816	823	822	231
25°	759	762	767	774	775	350
35°	673	679	690	703	706	422
45°	565	575	595	620	631	436
55°	437	453	493	532	550	389
65°	289	318	384	434	454	287
75°	136	186	259	303	313	146
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°	847.1	847.1	847.1	847.1	847.1
2.5°	848.5	848.5	844.5	847.1	847.1
5°	847.1	845.8	841.8	845.8	845.8
7.5°	843.1	841.8	839.1	843.1	841.8
10°	835.1	835.1	832.4	836.5	836.5
12.5°	828.4	827.1	825.8	831.1	829.8
15°	817.7	817.7	816.4	823.1	821.8
17.5°	804.4	805.7	807.1	812.4	813.7
20°	789.7	792.4	793.7	801.7	801.7
22.5°	776.3	777.7	780.3	788.3	788.3
25°	759.0	761.6	767.0	773.7	775.0
27.5°	741.6	742.9	749.6	759.0	760.3
30°	718.9	722.9	730.9	741.6	742.9
32.5°	698.8	702.8	712.2	722.9	725.5
35°	673.4	678.8	689.5	702.8	705.5
37.5°	650.7	654.7	668.1	682.8	686.8
40°	622.7	630.7	644.0	661.4	668.1
42.5°	594.6	602.6	618.7	641.4	649.4
45°	565.2	574.6	594.6	620.0	630.7
47.5°	535.8	546.5	569.2	598.6	610.6
50°	502.4	515.8	543.8	577.2	590.6
52.5°	470.3	486.4	517.1	554.5	571.9
55°	436.9	453.0	493.1	531.8	550.5
57.5°	399.5	420.9	465.0	509.1	529.1
60°	364.8	384.8	438.3	486.4	506.4
62.5°	327.4	354.1	411.5	462.3	482.4
65°	288.6	318.0	383.5	434.3	454.3
67.5°	253.9	285.9	355.4	406.2	426.2
70°	212.5	252.5	324.7	375.5	395.5
72.5°	173.7	217.8	292.6	342.1	360.8
75°	136.3	185.7	259.2	303.3	312.7
77.5°	101.6	153.7	224.5	243.2	236.5
80°	72.2	122.9	175.0	165.7	169.7
82.5°	46.8	93.5	108.2	122.9	126.9
85°	26.7	54.8	66.8	72.2	74.8
87.5°	12.0	20.0	26.7	26.7	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)