

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: P277047

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277047  
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-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2520.2 lumens  
Efficiency: N/A  
Efficacy: 79.2 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

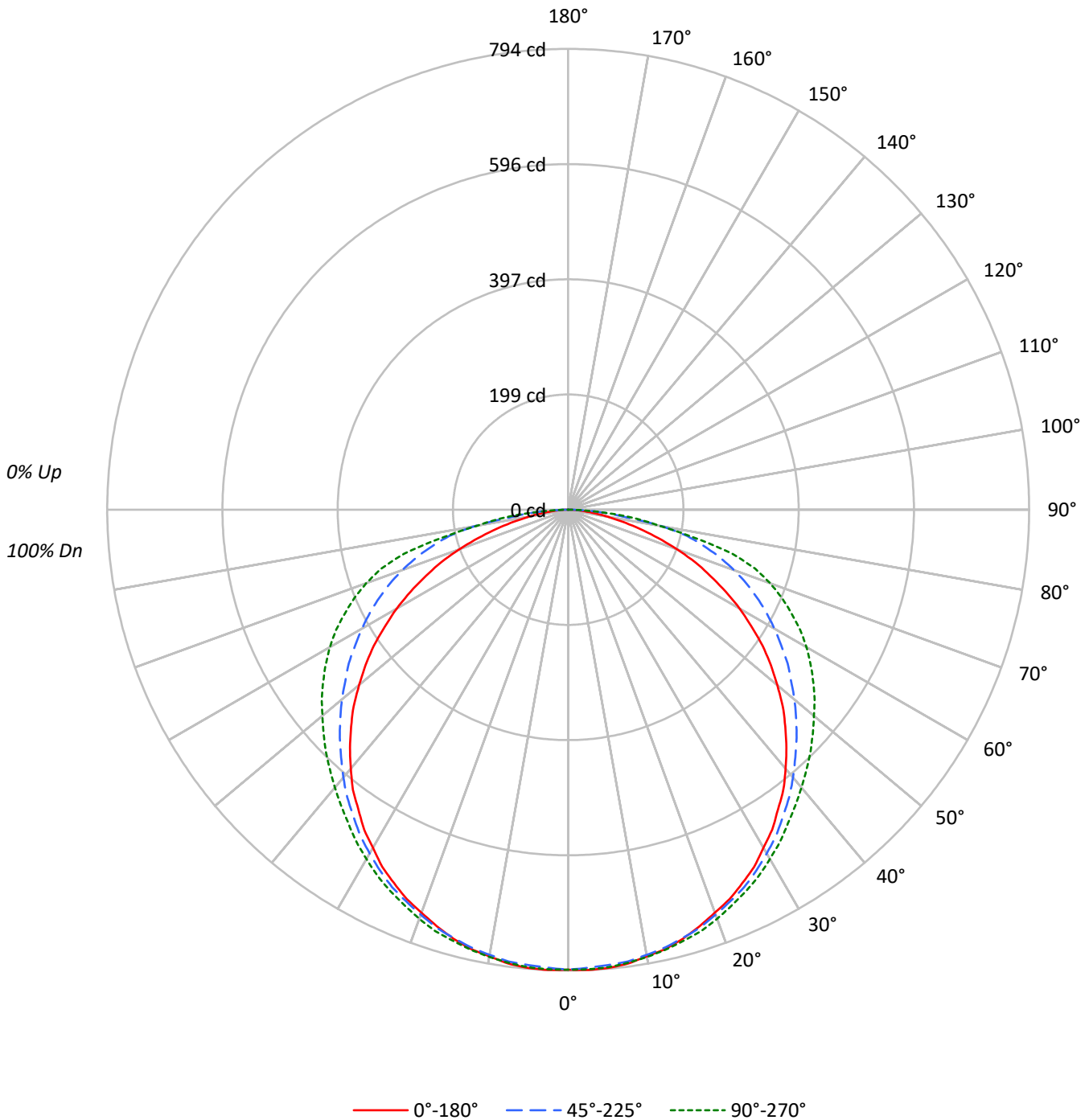
Input Watts (W): 31.806  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1066	1066	1066
5°	1070	1064	1069
10°	1067	1064	1069
15°	1066	1064	1071
20°	1058	1063	1074
25°	1054	1065	1076
30°	1045	1062	1080
35°	1035	1059	1084
40°	1023	1058	1098
45°	1006	1059	1123
50°	984	1065	1156
55°	959	1082	1208
60°	918	1103	1275
65°	860	1142	1353
70°	782	1195	1456
75°	663	1261	1521
80°	523	1269	1230
85°	386	965	1081



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.2	3.0
10°-20°	216.4	8.6
20°-30°	330.9	13.1
30°-40°	404.5	16.0
40°-50°	431.1	17.1
50°-60°	412.2	16.4
60°-70°	349.2	13.9
70°-80°	234.7	9.3
80°-90°	66.2	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°	622.4	24.7
0°-40°	1026.9	40.7
0°-60°	1870.2	74.2
0°-90°	2520.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2520.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	792	791	788	791	791	75
15°	765	765	764	770	769	216
25°	710	712	718	724	725	327
35°	630	635	645	658	660	395
45°	529	538	556	580	590	408
55°	409	424	461	498	515	364
65°	270	298	359	406	425	268
75°	128	174	242	284	292	137
85°	25	51	62	68	70	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	792.5	792.5	792.5	792.5	792.5
2.5°	793.8	793.8	790.0	792.5	792.5
5°	792.5	791.3	787.5	791.3	791.3
7.5°	788.8	787.5	785.0	788.8	787.5
10°	781.3	781.3	778.8	782.5	782.5
12.5°	775.0	773.8	772.5	777.5	776.3
15°	765.0	765.0	763.8	770.0	768.8
17.5°	752.5	753.8	755.0	760.0	761.3
20°	738.8	741.3	742.5	750.0	750.0
22.5°	726.3	727.5	730.0	737.5	737.5
25°	710.0	712.5	717.5	723.8	725.0
27.5°	693.8	695.0	701.3	710.0	711.3
30°	672.5	676.3	683.8	693.8	695.0
32.5°	653.8	657.5	666.3	676.3	678.8
35°	630.0	635.0	645.0	657.5	660.0
37.5°	608.8	612.5	625.0	638.8	642.5
40°	582.5	590.0	602.5	618.8	625.0
42.5°	556.3	563.8	578.8	600.0	607.5
45°	528.8	537.5	556.3	580.0	590.0
47.5°	501.3	511.3	532.5	560.0	571.3
50°	470.0	482.5	508.8	540.0	552.5
52.5°	440.0	455.0	483.8	518.8	535.0
55°	408.8	423.8	461.3	497.5	515.0
57.5°	373.8	393.8	435.0	476.3	495.0
60°	341.3	360.0	410.0	455.0	473.8
62.5°	306.3	331.3	385.0	432.5	451.3
65°	270.0	297.5	358.8	406.3	425.0
67.5°	237.5	267.5	332.5	380.0	398.8
70°	198.8	236.3	303.8	351.3	370.0
72.5°	162.5	203.8	273.8	320.0	337.5
75°	127.5	173.8	242.5	283.8	292.5
77.5°	95.0	143.8	210.0	227.5	221.3
80°	67.5	115.0	163.8	155.0	158.8
82.5°	43.8	87.5	101.3	115.0	118.8
85°	25.0	51.3	62.5	67.5	70.0
87.5°	11.3	18.8	25.0	25.0	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)