

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: P277048

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277048  
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-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2585.7 lumens  
Efficiency: N/A  
Efficacy: 80.8 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

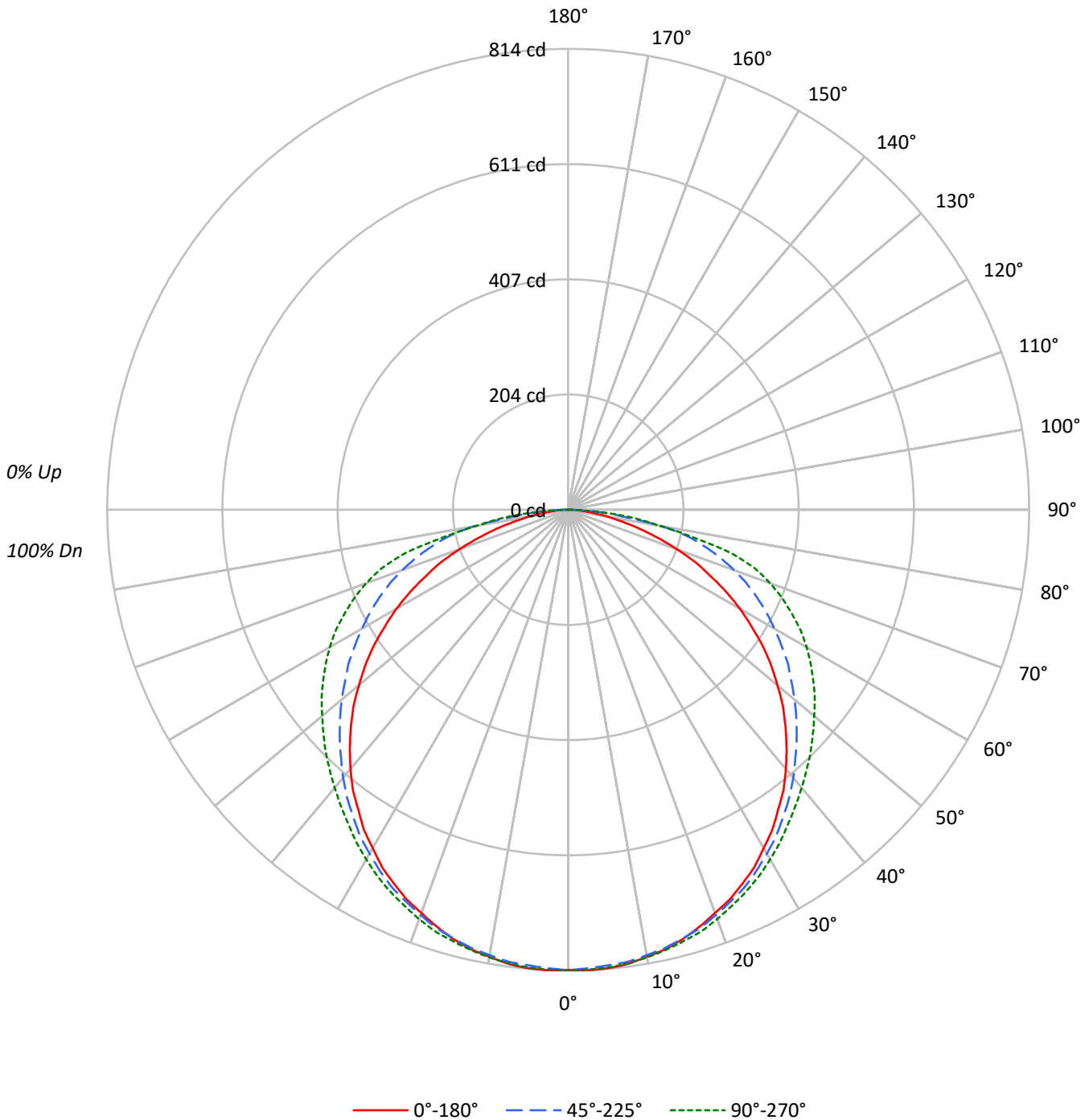
Input Watts (W): 31.992  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1094	1094	1094
5°	1098	1091	1096
10°	1095	1092	1097
15°	1093	1092	1099
20°	1085	1091	1102
25°	1082	1093	1104
30°	1072	1090	1108
35°	1062	1087	1112
40°	1050	1086	1126
45°	1032	1086	1152
50°	1009	1093	1187
55°	984	1110	1240
60°	942	1132	1308
65°	882	1172	1388
70°	802	1226	1493
75°	680	1293	1560
80°	537	1302	1262
85°	397	990	1108



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.1	3.0
10°-20°	222.0	8.6
20°-30°	339.5	13.1
30°-40°	415.0	16.0
40°-50°	442.3	17.1
50°-60°	422.9	16.4
60°-70°	358.2	13.9
70°-80°	240.8	9.3
80°-90°	67.9	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°	638.6	24.7
0°-40°	1053.6	40.7
0°-60°	1918.8	74.2
0°-90°	2585.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2585.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	813	813	813	813	813	
5°	813	812	808	812	812	77
15°	785	785	784	790	789	221
25°	728	731	736	743	744	336
35°	646	652	662	675	677	405
45°	542	552	571	595	605	418
55°	419	435	473	510	528	374
65°	277	305	368	417	436	275
75°	131	178	249	291	300	140
85°	26	53	64	69	72	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	813.1	813.1	813.1	813.1	813.1
2.5°	814.4	814.4	810.6	813.1	813.1
5°	813.1	811.8	808.0	811.8	811.8
7.5°	809.3	808.0	805.4	809.3	808.0
10°	801.6	801.6	799.0	802.9	802.9
12.5°	795.2	793.9	792.6	797.7	796.5
15°	784.9	784.9	783.6	790.0	788.8
17.5°	772.1	773.4	774.7	779.8	781.1
20°	758.0	760.5	761.8	769.5	769.5
22.5°	745.2	746.4	749.0	756.7	756.7
25°	728.5	731.0	736.2	742.6	743.9
27.5°	711.8	713.1	719.5	728.5	729.8
30°	690.0	693.9	701.5	711.8	713.1
32.5°	670.8	674.6	683.6	693.9	696.4
35°	646.4	651.5	661.8	674.6	677.2
37.5°	624.6	628.4	641.3	655.4	659.2
40°	597.7	605.4	618.2	634.9	641.3
42.5°	570.7	578.4	593.8	615.6	623.3
45°	542.5	551.5	570.7	595.1	605.4
47.5°	514.3	524.6	546.4	574.6	586.1
50°	482.2	495.1	522.0	554.1	566.9
52.5°	451.5	466.8	496.3	532.3	548.9
55°	419.4	434.8	473.3	510.4	528.4
57.5°	383.5	404.0	446.3	488.6	507.9
60°	350.1	369.4	420.7	466.8	486.1
62.5°	314.2	339.9	395.0	443.8	463.0
65°	277.0	305.2	368.1	416.8	436.1
67.5°	243.7	274.5	341.2	389.9	409.1
70°	203.9	242.4	311.7	360.4	379.6
72.5°	166.7	209.1	280.9	328.3	346.3
75°	130.8	178.3	248.8	291.1	300.1
77.5°	97.5	147.5	215.5	233.4	227.0
80°	69.3	118.0	168.0	159.0	162.9
82.5°	44.9	89.8	103.9	118.0	121.8
85°	25.7	52.6	64.1	69.3	71.8
87.5°	11.5	19.2	25.7	25.7	24.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)