

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: P276831

Luminaire Tested: **24CZ2-50HE-RDP-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276831  
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: 24CZ2-50HE-RDP-UNV-L93050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2986.7 lumens  
Efficiency: N/A  
Efficacy: 80.3 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

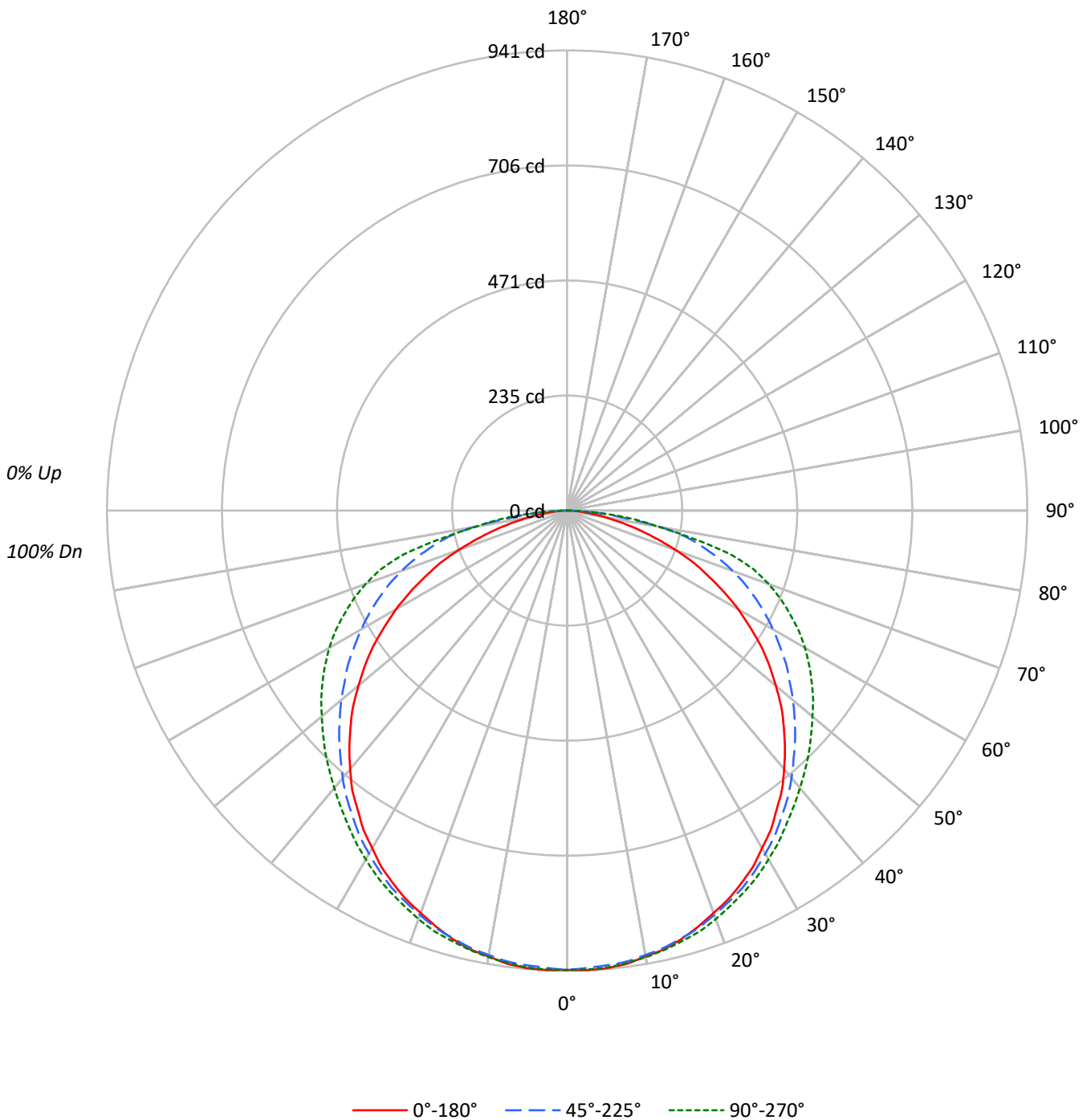
Input Watts (W): 37.211904  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1264	1264	1264
5°	1269	1261	1267
10°	1265	1261	1267
15°	1263	1261	1269
20°	1254	1260	1273
25°	1249	1262	1276
30°	1238	1259	1280
35°	1226	1256	1285
40°	1213	1254	1301
45°	1192	1254	1330
50°	1166	1262	1371
55°	1136	1282	1432
60°	1088	1308	1511
65°	1019	1354	1604
70°	926	1416	1725
75°	786	1494	1802
80°	620	1504	1457
85°	457	1144	1281



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.1	3.0
10°-20°	256.4	8.6
20°-30°	392.1	13.1
30°-40°	479.4	16.0
40°-50°	510.9	17.1
50°-60°	488.5	16.4
60°-70°	413.8	13.9
70°-80°	278.1	9.3
80°-90°	78.4	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°	737.6	24.7
0°-40°	1217.0	40.7
0°-60°	2216.3	74.2
0°-90°	2986.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2986.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	939	939	939	939	939	
5°	939	938	933	938	938	89
15°	907	907	905	913	911	256
25°	842	844	850	858	859	388
35°	747	753	764	779	782	468
45°	627	637	659	687	699	483
55°	484	502	547	590	610	431
65°	320	353	425	482	504	318
75°	151	206	287	336	347	162
85°	30	61	74	80	83	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	939.2	939.2	939.2	939.2	939.2
2.5°	940.7	940.7	936.3	939.2	939.2
5°	939.2	937.8	933.3	937.8	937.8
7.5°	934.8	933.3	930.3	934.8	933.3
10°	925.9	925.9	922.9	927.4	927.4
12.5°	918.5	917.0	915.5	921.5	920.0
15°	906.6	906.6	905.2	912.6	911.1
17.5°	891.8	893.3	894.8	900.7	902.2
20°	875.5	878.5	880.0	888.9	888.9
22.5°	860.7	862.2	865.2	874.1	874.1
25°	841.5	844.4	850.3	857.8	859.2
27.5°	822.2	823.7	831.1	841.5	842.9
30°	797.0	801.5	810.4	822.2	823.7
32.5°	774.8	779.2	789.6	801.5	804.4
35°	746.6	752.6	764.4	779.2	782.2
37.5°	721.5	725.9	740.7	757.0	761.5
40°	690.4	699.2	714.1	733.3	740.7
42.5°	659.2	668.1	685.9	711.1	720.0
45°	626.7	637.0	659.2	687.4	699.2
47.5°	594.1	605.9	631.1	663.7	677.0
50°	557.0	571.8	602.9	640.0	654.8
52.5°	521.5	539.2	573.3	614.8	634.1
55°	484.4	502.2	546.7	589.6	610.4
57.5°	443.0	466.7	515.5	564.4	586.7
60°	404.4	426.7	485.9	539.2	561.5
62.5°	363.0	392.6	456.3	512.6	534.8
65°	320.0	352.6	425.2	481.5	503.7
67.5°	281.5	317.0	394.1	450.4	472.6
70°	235.5	280.0	360.0	416.3	438.5
72.5°	192.6	241.5	324.4	379.2	400.0
75°	151.1	205.9	287.4	336.3	346.7
77.5°	112.6	170.4	248.9	269.6	262.2
80°	80.0	136.3	194.1	183.7	188.1
82.5°	51.9	103.7	120.0	136.3	140.7
85°	29.6	60.7	74.1	80.0	83.0
87.5°	13.3	22.2	29.6	29.6	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)