

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: P391352

Luminaire Tested: **24CZ2-40VHE-RDP-UNV-L950-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P391352  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40VHE-RDP-UNV-L950-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2464.9 lumens  
Efficiency: N/A  
Efficacy: 94.1 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

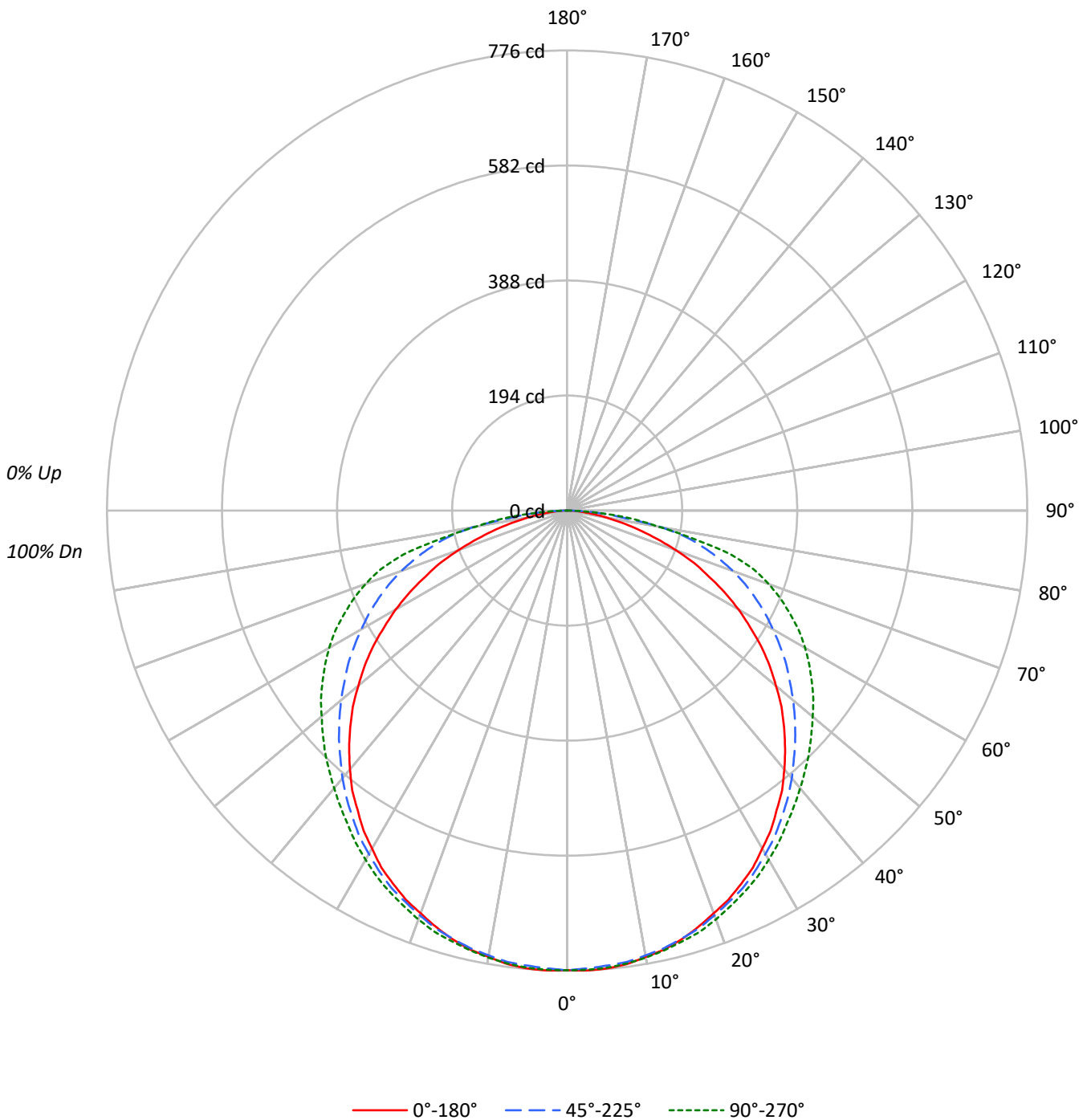
Input Watts (W): 26.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1043	1043	1043
5°	1047	1040	1045
10°	1044	1041	1046
15°	1042	1041	1047
20°	1035	1040	1050
25°	1031	1042	1053
30°	1022	1039	1056
35°	1012	1036	1060
40°	1001	1035	1074
45°	984	1035	1098
50°	962	1042	1131
55°	938	1058	1182
60°	898	1079	1247
65°	841	1117	1323
70°	765	1169	1424
75°	648	1233	1487
80°	511	1241	1203
85°	378	943	1057



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.5	3.0
10°-20°	211.6	8.6
20°-30°	323.6	13.1
30°-40°	395.6	16.0
40°-50°	421.6	17.1
50°-60°	403.1	16.4
60°-70°	341.5	13.9
70°-80°	229.5	9.3
80°-90°	64.7	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°	608.8	24.7
0°-40°	1004.4	40.7
0°-60°	1829.1	74.2
0°-90°	2464.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2464.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	775	774	770	774	774	74
15°	748	748	747	753	752	211
25°	694	697	702	708	709	320
35°	616	621	631	643	646	386
45°	517	526	544	567	577	399
55°	400	414	451	487	504	356
65°	264	291	351	397	416	262
75°	125	170	237	278	286	134
85°	24	50	61	66	68	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	775.1	775.1	775.1	775.1	775.1
2.5°	776.4	776.4	772.7	775.1	775.1
5°	775.1	773.9	770.3	773.9	773.9
7.5°	771.5	770.3	767.8	771.5	770.3
10°	764.1	764.1	761.7	765.4	765.4
12.5°	758.0	756.8	755.6	760.5	759.2
15°	748.2	748.2	747.0	753.1	751.9
17.5°	736.0	737.2	738.5	743.4	744.6
20°	722.6	725.0	726.2	733.6	733.6
22.5°	710.3	711.6	714.0	721.3	721.3
25°	694.4	696.9	701.8	707.9	709.1
27.5°	678.6	679.8	685.9	694.4	695.7
30°	657.8	661.4	668.8	678.6	679.8
32.5°	639.4	643.1	651.7	661.4	663.9
35°	616.2	621.1	630.9	643.1	645.5
37.5°	595.4	599.1	611.3	624.8	628.4
40°	569.7	577.1	589.3	605.2	611.3
42.5°	544.1	551.4	566.1	586.9	594.2
45°	517.2	525.7	544.1	567.3	577.1
47.5°	490.3	500.1	520.8	547.7	558.7
50°	459.7	471.9	497.6	528.2	540.4
52.5°	430.4	445.0	473.2	507.4	523.3
55°	399.8	414.5	451.1	486.6	503.7
57.5°	365.6	385.1	425.5	465.8	484.2
60°	333.8	352.1	401.0	445.0	463.4
62.5°	299.5	324.0	376.6	423.0	441.4
65°	264.1	291.0	350.9	397.4	415.7
67.5°	232.3	261.6	325.2	371.7	390.0
70°	194.4	231.1	297.1	343.6	361.9
72.5°	158.9	199.3	267.8	313.0	330.1
75°	124.7	169.9	237.2	277.5	286.1
77.5°	92.9	140.6	205.4	222.5	216.4
80°	66.0	112.5	160.2	151.6	155.3
82.5°	42.8	85.6	99.0	112.5	116.1
85°	24.5	50.1	61.1	66.0	68.5
87.5°	11.0	18.3	24.5	24.5	23.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)