

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: P391304

Luminaire Tested: **24CZ2-35VHE-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: P391304  
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: 24CZ2-35VHE-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: 2150.2 lumens  
Efficiency: N/A  
Efficacy: 94.3 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

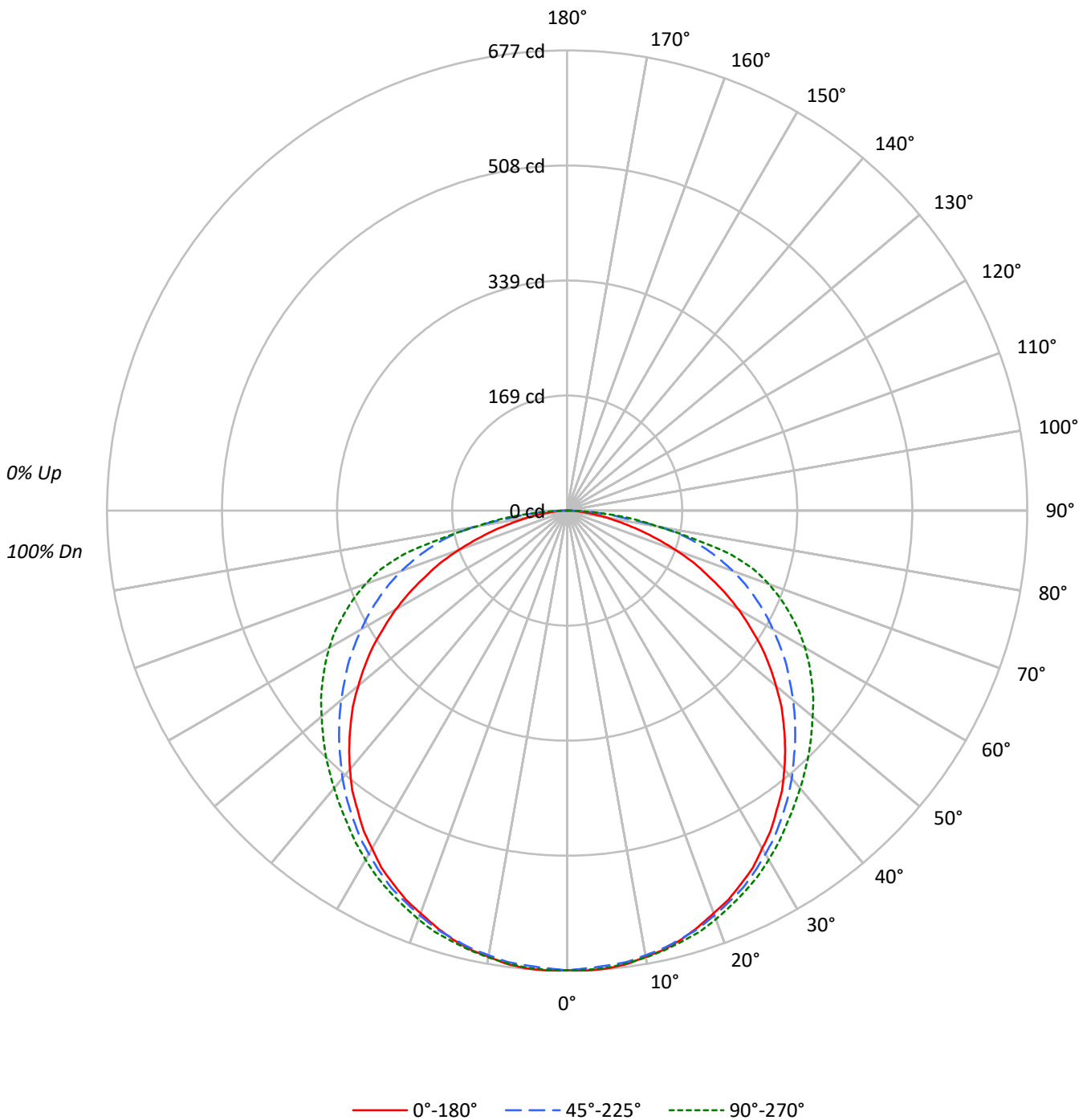
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	68	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°	910	910	910
5°	913	907	912
10°	911	908	912
15°	909	908	914
20°	902	907	916
25°	899	909	918
30°	891	906	921
35°	883	904	925
40°	873	903	937
45°	858	903	958
50°	839	909	987
55°	818	923	1031
60°	784	941	1088
65°	734	975	1154
70°	667	1020	1242
75°	566	1076	1298
80°	446	1082	1049
85°	329	823	922



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.1	3.0
10°-20°	184.6	8.6
20°-30°	282.3	13.1
30°-40°	345.1	16.0
40°-50°	367.8	17.1
50°-60°	351.7	16.4
60°-70°	297.9	13.9
70°-80°	200.2	9.3
80°-90°	56.5	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°	531.0	24.7
0°-40°	876.1	40.7
0°-60°	1595.6	74.2
0°-90°	2150.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2150.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	676	675	672	675	675	64
15°	653	653	652	657	656	184
25°	606	608	612	618	619	279
35°	538	542	550	561	563	337
45°	451	459	475	495	503	348
55°	349	362	394	424	439	311
65°	230	254	306	347	363	229
75°	109	148	207	242	250	116
85°	21	44	53	58	60	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	676.2	676.2	676.2	676.2	676.2
2.5°	677.2	677.2	674.0	676.2	676.2
5°	676.2	675.1	671.9	675.1	675.1
7.5°	673.0	671.9	669.8	673.0	671.9
10°	666.6	666.6	664.4	667.6	667.6
12.5°	661.2	660.2	659.1	663.4	662.3
15°	652.7	652.7	651.6	657.0	655.9
17.5°	642.0	643.1	644.2	648.4	649.5
20°	630.3	632.4	633.5	639.9	639.9
22.5°	619.7	620.7	622.9	629.2	629.2
25°	605.8	607.9	612.2	617.5	618.6
27.5°	591.9	593.0	598.3	605.8	606.9
30°	573.8	577.0	583.4	591.9	593.0
32.5°	557.8	561.0	568.5	577.0	579.1
35°	537.5	541.8	550.3	561.0	563.1
37.5°	519.4	522.6	533.3	545.0	548.2
40°	497.0	503.4	514.1	527.9	533.3
42.5°	474.6	481.0	493.8	511.9	518.3
45°	451.1	458.6	474.6	494.9	503.4
47.5°	427.7	436.2	454.3	477.8	487.4
50°	401.0	411.7	434.1	460.7	471.4
52.5°	375.4	388.2	412.7	442.6	456.5
55°	348.8	361.6	393.5	424.5	439.4
57.5°	318.9	336.0	371.2	406.3	422.3
60°	291.2	307.2	349.8	388.2	404.2
62.5°	261.3	282.6	328.5	369.0	385.0
65°	230.4	253.8	306.1	346.6	362.6
67.5°	202.6	228.2	283.7	324.2	340.2
70°	169.6	201.6	259.2	299.7	315.7
72.5°	138.6	173.8	233.6	273.0	288.0
75°	108.8	148.2	206.9	242.1	249.6
77.5°	81.1	122.7	179.2	194.1	188.8
80°	57.6	98.1	139.7	132.2	135.4
82.5°	37.3	74.7	86.4	98.1	101.3
85°	21.3	43.7	53.3	57.6	59.7
87.5°	9.6	16.0	21.3	21.3	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)