

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: P391298

Luminaire Tested: **24CZ2-35VHE-RDP-UNV-L935-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: P391298  
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-L935-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2005.0 lumens  
Efficiency: N/A  
Efficacy: 87.9 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

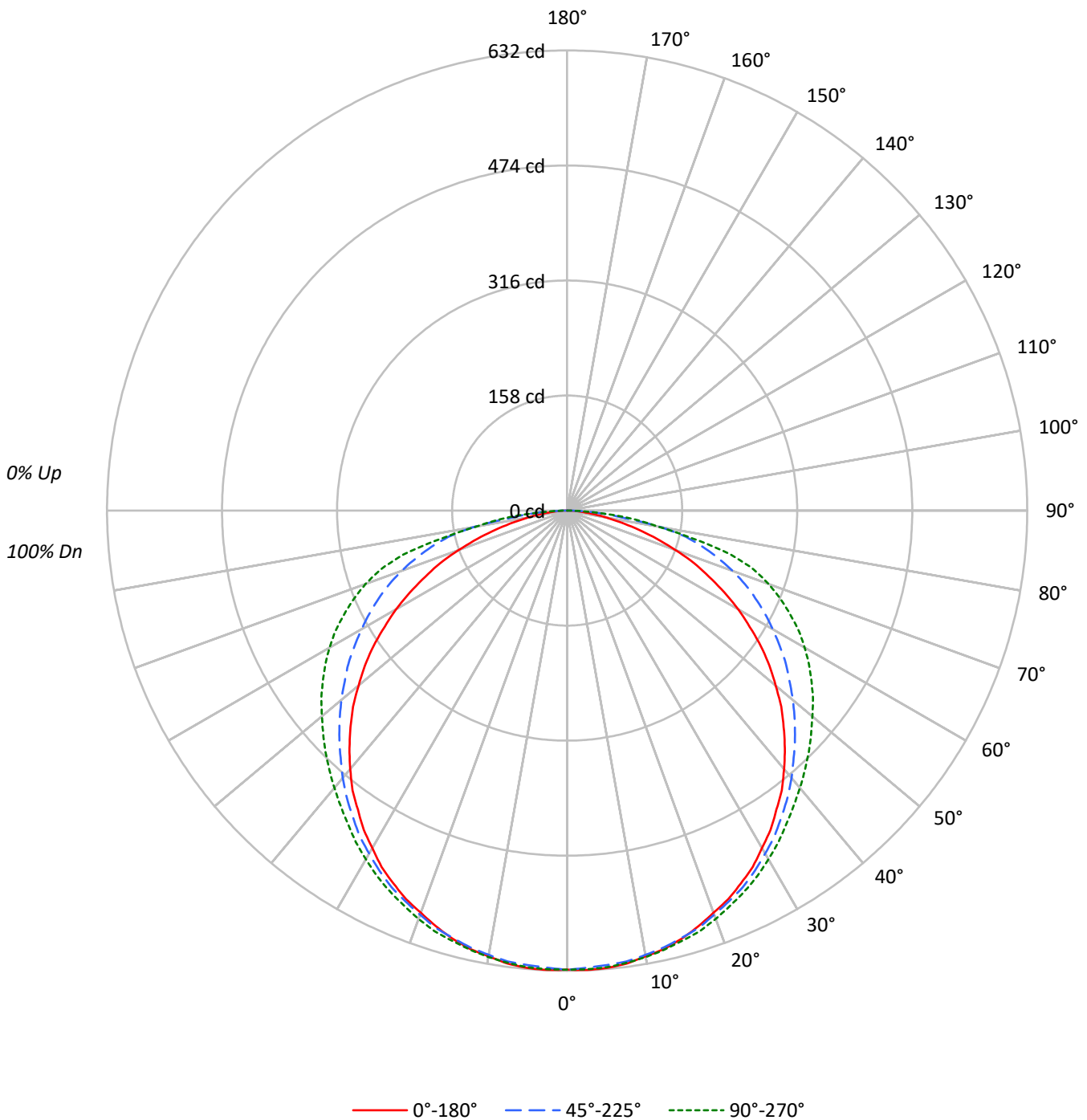
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20			20			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°	848	848	848
5°	852	846	850
10°	849	847	851
15°	848	846	852
20°	842	846	854
25°	839	847	856
30°	831	845	859
35°	823	843	862
40°	814	842	873
45°	801	842	893
50°	783	847	920
55°	763	861	961
60°	731	878	1014
65°	684	909	1076
70°	622	951	1158
75°	527	1003	1210
80°	416	1010	979
85°	307	767	860



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	3.0
10°-20°	172.1	8.6
20°-30°	263.2	13.1
30°-40°	321.8	16.0
40°-50°	343.0	17.1
50°-60°	327.9	16.4
60°-70°	277.8	13.9
70°-80°	186.7	9.3
80°-90°	52.7	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°	495.2	24.7
0°-40°	817.0	40.7
0°-60°	1487.9	74.2
0°-90°	2005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2005.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	630	630	626	630	630	60
15°	609	609	608	613	612	172
25°	565	567	571	576	577	260
35°	501	505	513	523	525	314
45°	421	428	443	461	469	324
55°	325	337	367	396	410	290
65°	215	237	285	323	338	213
75°	101	138	193	226	233	109
85°	20	41	50	54	56	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	630.5	630.5	630.5	630.5	630.5
2.5°	631.5	631.5	628.5	630.5	630.5
5°	630.5	629.5	626.5	629.5	629.5
7.5°	627.5	626.5	624.5	627.5	626.5
10°	621.6	621.6	619.6	622.6	622.6
12.5°	616.6	615.6	614.6	618.6	617.6
15°	608.6	608.6	607.6	612.6	611.6
17.5°	598.7	599.7	600.7	604.7	605.7
20°	587.8	589.7	590.7	596.7	596.7
22.5°	577.8	578.8	580.8	586.8	586.8
25°	564.9	566.9	570.8	575.8	576.8
27.5°	551.9	552.9	557.9	564.9	565.9
30°	535.0	538.0	544.0	551.9	552.9
32.5°	520.1	523.1	530.1	538.0	540.0
35°	501.2	505.2	513.2	523.1	525.1
37.5°	484.3	487.3	497.3	508.2	511.2
40°	463.4	469.4	479.4	492.3	497.3
42.5°	442.6	448.5	460.5	477.4	483.3
45°	420.7	427.6	442.6	461.4	469.4
47.5°	398.8	406.8	423.7	445.5	454.5
50°	373.9	383.9	404.8	429.6	439.6
52.5°	350.1	362.0	384.9	412.7	425.6
55°	325.2	337.1	367.0	395.8	409.7
57.5°	297.4	313.3	346.1	378.9	393.8
60°	271.5	286.4	326.2	362.0	376.9
62.5°	243.7	263.5	306.3	344.1	359.0
65°	214.8	236.7	285.4	323.2	338.1
67.5°	189.0	212.8	264.5	302.3	317.2
70°	158.1	188.0	241.7	279.5	294.4
72.5°	129.3	162.1	217.8	254.6	268.5
75°	101.4	138.2	192.9	225.8	232.7
77.5°	75.6	114.4	167.1	181.0	176.0
80°	53.7	91.5	130.3	123.3	126.3
82.5°	34.8	69.6	80.6	91.5	94.5
85°	19.9	40.8	49.7	53.7	55.7
87.5°	9.0	14.9	19.9	19.9	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)