

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: P391536

Luminaire Tested: **24CZ2-60VHE-RDP-UNV-L935-CD1-SDWPD1-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: P391536  
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: 24CZ2-60VHE-RDP-UNV-L935-CD1-SDWPD1-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: 3359.4 lumens  
Efficiency: N/A  
Efficacy: 86.8 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

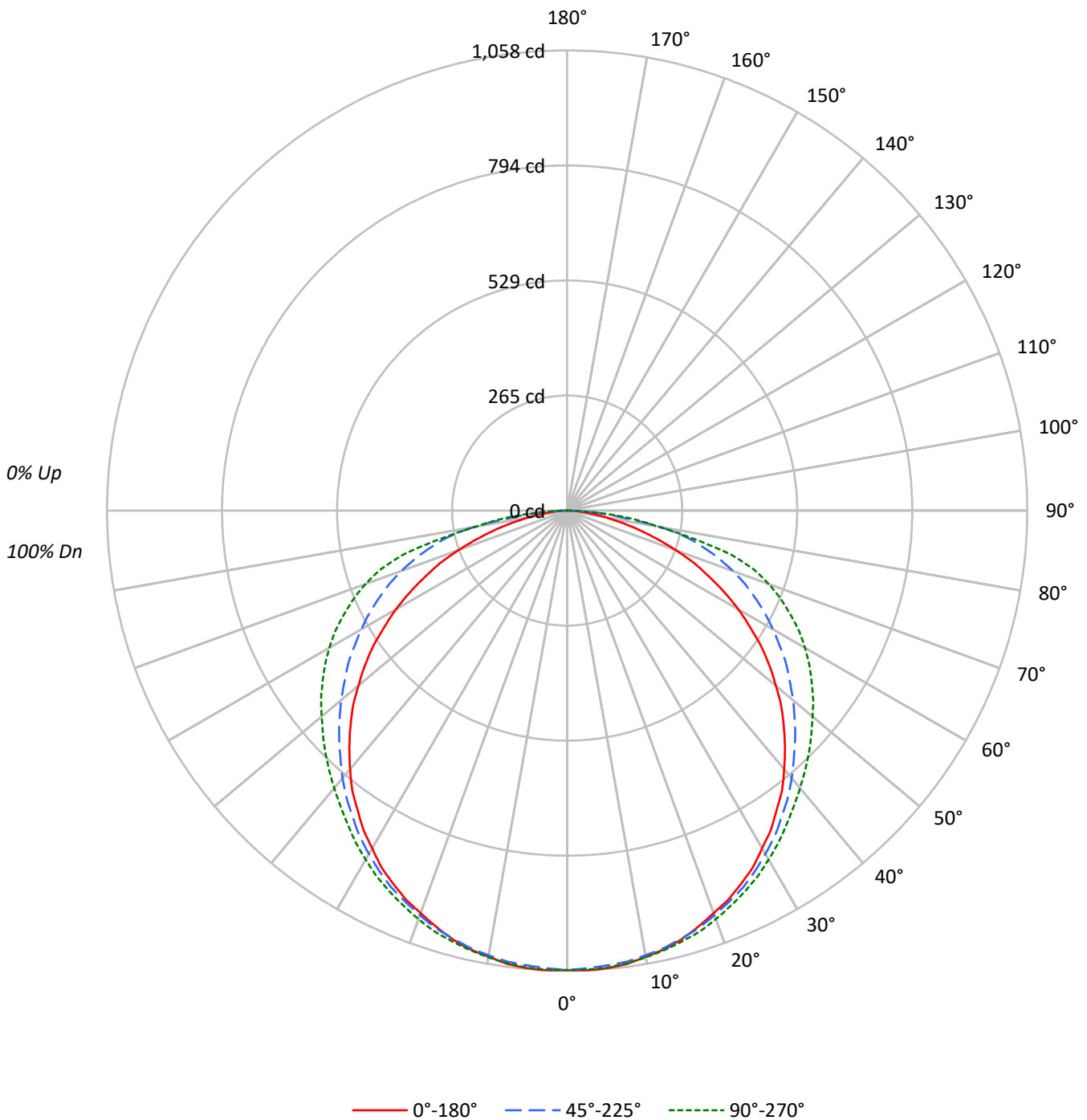
Input Watts (W): 38.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1421	1421	1421
5°	1427	1418	1425
10°	1423	1418	1425
15°	1421	1418	1427
20°	1410	1417	1432
25°	1405	1420	1435
30°	1393	1416	1439
35°	1379	1412	1445
40°	1364	1411	1463
45°	1341	1411	1497
50°	1311	1420	1542
55°	1278	1442	1610
60°	1224	1471	1699
65°	1146	1522	1804
70°	1042	1593	1940
75°	884	1681	2027
80°	697	1691	1640
85°	514	1286	1440



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	3.0
10°-20°	288.4	8.6
20°-30°	441.0	13.1
30°-40°	539.2	16.0
40°-50°	574.6	17.1
50°-60°	549.4	16.4
60°-70°	465.4	13.9
70°-80°	312.8	9.3
80°-90°	88.2	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°	829.7	24.7
0°-40°	1368.8	40.7
0°-60°	2492.9	74.2
0°-90°	3359.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3359.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1056	1055	1050	1055	1055	100
15°	1020	1020	1018	1026	1025	288
25°	946	950	956	965	966	436
35°	840	846	860	876	880	526
45°	705	716	742	773	786	544
55°	545	565	615	663	686	485
65°	360	397	478	542	566	357
75°	170	232	323	378	390	182
85°	33	68	83	90	93	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1056.4	1056.4	1056.4	1056.4	1056.4
2.5°	1058.1	1058.1	1053.1	1056.4	1056.4
5°	1056.4	1054.8	1049.8	1054.8	1054.8
7.5°	1051.4	1049.8	1046.4	1051.4	1049.8
10°	1041.4	1041.4	1038.1	1043.1	1043.1
12.5°	1033.1	1031.4	1029.8	1036.4	1034.8
15°	1019.8	1019.8	1018.1	1026.4	1024.8
17.5°	1003.1	1004.8	1006.4	1013.1	1014.8
20°	984.8	988.1	989.8	999.8	999.8
22.5°	968.1	969.8	973.1	983.1	983.1
25°	946.5	949.8	956.5	964.8	966.5
27.5°	924.8	926.5	934.8	946.5	948.1
30°	896.5	901.5	911.5	924.8	926.5
32.5°	871.5	876.5	888.1	901.5	904.8
35°	839.8	846.5	859.8	876.5	879.8
37.5°	811.5	816.5	833.2	851.5	856.5
40°	776.5	786.5	803.2	824.8	833.2
42.5°	741.5	751.5	771.5	799.8	809.8
45°	704.8	716.5	741.5	773.2	786.5
47.5°	668.2	681.5	709.8	746.5	761.5
50°	626.5	643.2	678.2	719.8	736.5
52.5°	586.5	606.5	644.9	691.5	713.2
55°	544.9	564.9	614.9	663.2	686.5
57.5°	498.2	524.9	579.9	634.9	659.9
60°	454.9	479.9	546.5	606.5	631.5
62.5°	408.2	441.6	513.2	576.5	601.5
65°	359.9	396.6	478.2	541.5	566.5
67.5°	316.6	356.6	443.2	506.6	531.6
70°	264.9	314.9	404.9	468.2	493.2
72.5°	216.6	271.6	364.9	426.6	449.9
75°	170.0	231.6	323.3	378.3	389.9
77.5°	126.6	191.6	279.9	303.3	294.9
80°	90.0	153.3	218.3	206.6	211.6
82.5°	58.3	116.6	135.0	153.3	158.3
85°	33.3	68.3	83.3	90.0	93.3
87.5°	15.0	25.0	33.3	33.3	31.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)