

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: P391534

Luminaire Tested: **24CZ2-60VHE-RDP-UNV-L930-CD1-SWPD1-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: P391534
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-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3318.3 lumens
Efficiency: N/A
Efficacy: 85.7 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

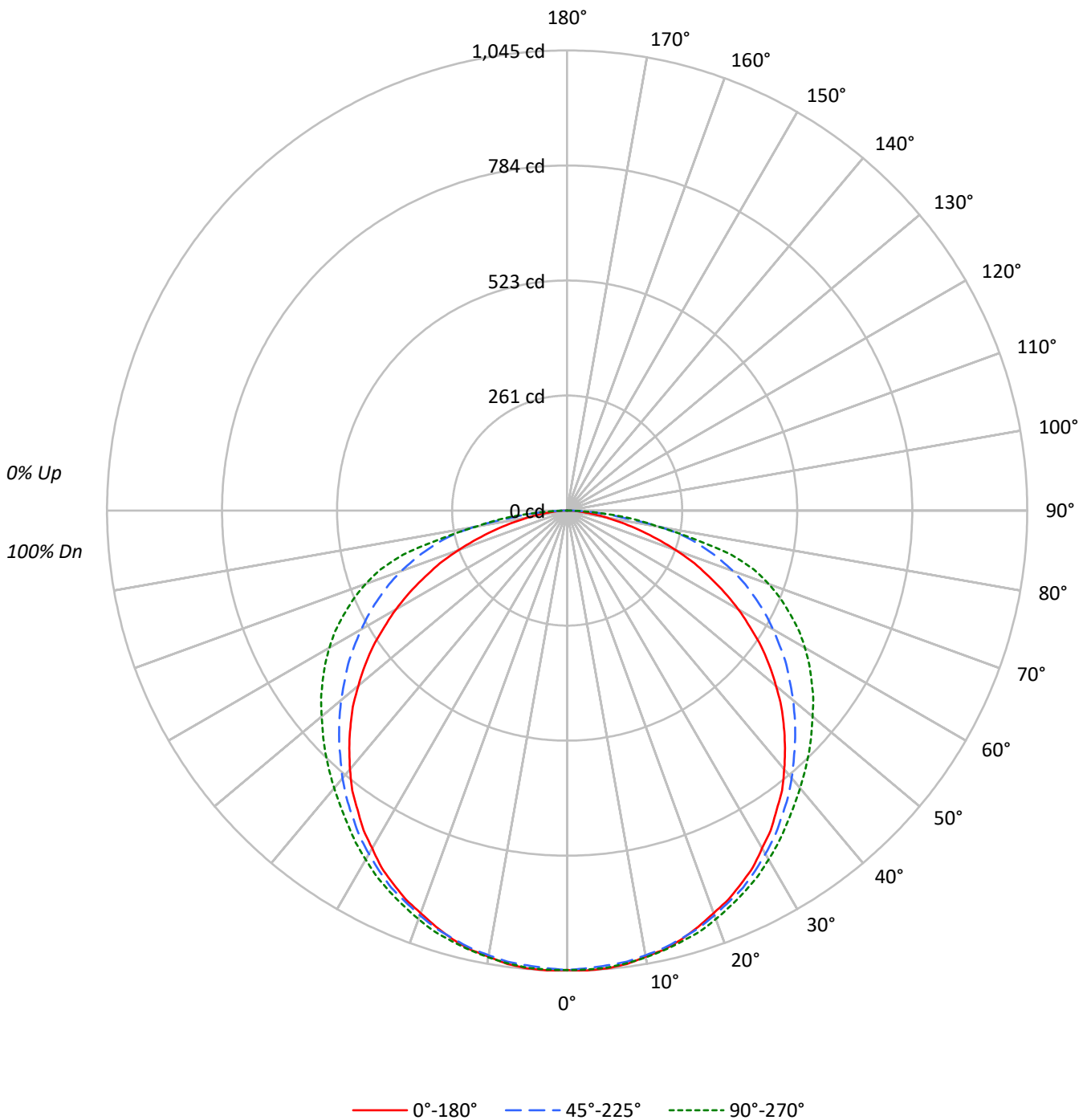
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1404	1404	1404
5°	1409	1400	1407
10°	1405	1401	1408
15°	1403	1401	1410
20°	1393	1400	1414
25°	1388	1403	1417
30°	1376	1399	1422
35°	1362	1395	1427
40°	1347	1393	1446
45°	1325	1394	1478
50°	1295	1402	1523
55°	1263	1425	1591
60°	1209	1453	1679
65°	1132	1504	1782
70°	1030	1574	1917
75°	873	1660	2002
80°	689	1671	1619
85°	508	1271	1423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	3.0
10°-20°	284.9	8.6
20°-30°	435.6	13.1
30°-40°	532.6	16.0
40°-50°	567.6	17.1
50°-60°	542.7	16.4
60°-70°	459.7	13.9
70°-80°	309.0	9.3
80°-90°	87.2	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°	819.5	24.7
0°-40°	1352.1	40.7
0°-60°	2462.4	74.2
0°-90°	3318.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3318.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1044	1044	1044	1044	1044	
5°	1044	1042	1037	1042	1042	99
15°	1007	1007	1006	1014	1012	284
25°	935	938	945	953	955	431
35°	830	836	849	866	869	520
45°	696	708	732	764	777	537
55°	538	558	607	655	678	479
65°	356	392	472	535	560	353
75°	168	229	319	374	385	180
85°	33	68	82	89	92	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1043.5	1043.5	1043.5	1043.5	1043.5
2.5°	1045.2	1045.2	1040.2	1043.5	1043.5
5°	1043.5	1041.9	1036.9	1041.9	1041.9
7.5°	1038.6	1036.9	1033.6	1038.6	1036.9
10°	1028.7	1028.7	1025.4	1030.3	1030.3
12.5°	1020.5	1018.8	1017.2	1023.8	1022.1
15°	1007.3	1007.3	1005.7	1013.9	1012.2
17.5°	990.8	992.5	994.1	1000.7	1002.4
20°	972.7	976.0	977.7	987.5	987.5
22.5°	956.3	957.9	961.2	971.1	971.1
25°	934.9	938.2	944.8	953.0	954.6
27.5°	913.5	915.1	923.4	934.9	936.5
30°	885.5	890.4	900.3	913.5	915.1
32.5°	860.8	865.8	877.3	890.4	893.7
35°	829.5	836.1	849.3	865.8	869.0
37.5°	801.6	806.5	823.0	841.1	846.0
40°	767.0	776.9	793.3	814.7	823.0
42.5°	732.4	742.3	762.1	790.0	799.9
45°	696.2	707.7	732.4	763.7	776.9
47.5°	660.0	673.2	701.2	737.4	752.2
50°	618.9	635.3	669.9	711.0	727.5
52.5°	579.4	599.1	637.0	683.1	704.5
55°	538.2	558.0	607.3	655.1	678.1
57.5°	492.1	518.5	572.8	627.1	651.8
60°	449.3	474.0	539.9	599.1	623.8
62.5°	403.2	436.2	506.9	569.5	594.2
65°	355.5	391.7	472.4	534.9	559.6
67.5°	312.7	352.2	437.8	500.4	525.0
70°	261.7	311.1	400.0	462.5	487.2
72.5°	214.0	268.3	360.5	421.4	444.4
75°	167.9	228.8	319.3	373.6	385.1
77.5°	125.1	189.3	276.5	299.6	291.3
80°	88.9	151.4	215.6	204.1	209.0
82.5°	57.6	115.2	133.3	151.4	156.4
85°	32.9	67.5	82.3	88.9	92.2
87.5°	14.8	24.7	32.9	32.9	31.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)