

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: P391537

Luminaire Tested: **24CZ2-60VHE-RDP-UNV-L935-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: P391537
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-SWPD1-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: 3400.4 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

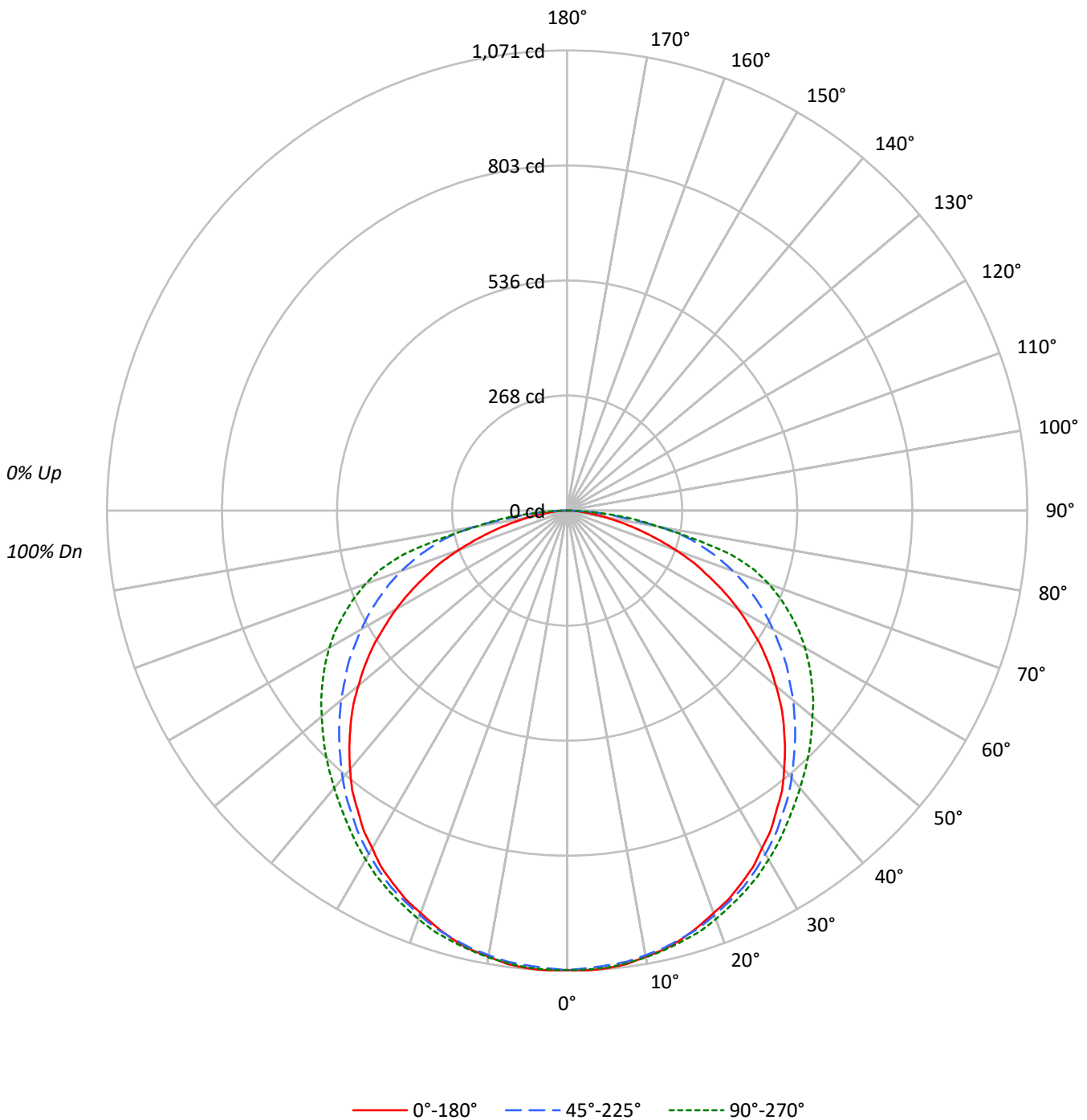
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1439	1439	1439
5°	1444	1435	1442
10°	1440	1436	1442
15°	1438	1435	1445
20°	1427	1435	1449
25°	1422	1437	1452
30°	1410	1433	1457
35°	1396	1430	1463
40°	1381	1428	1481
45°	1357	1428	1515
50°	1328	1437	1560
55°	1294	1460	1630
60°	1239	1489	1720
65°	1160	1541	1826
70°	1055	1613	1964
75°	894	1701	2052
80°	706	1712	1660
85°	520	1301	1459



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.4	3.0
10°-20°	291.9	8.6
20°-30°	446.4	13.1
30°-40°	545.8	16.0
40°-50°	581.7	17.1
50°-60°	556.1	16.4
60°-70°	471.1	13.9
70°-80°	316.6	9.3
80°-90°	89.3	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°	839.8	24.7
0°-40°	1385.5	40.7
0°-60°	2523.3	74.2
0°-90°	3400.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3400.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1069	1069	1069	1069	1069	
5°	1069	1068	1063	1068	1068	102
15°	1032	1032	1030	1039	1037	291
25°	958	961	968	977	978	442
35°	850	857	870	887	890	533
45°	713	725	751	783	796	550
55°	552	572	622	671	695	491
65°	364	401	484	548	574	362
75°	172	234	327	383	395	184
85°	34	69	84	91	94	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1069.3	1069.3	1069.3	1069.3	1069.3
2.5°	1071.0	1071.0	1066.0	1069.3	1069.3
5°	1069.3	1067.6	1062.6	1067.6	1067.6
7.5°	1064.3	1062.6	1059.2	1064.3	1062.6
10°	1054.1	1054.1	1050.8	1055.8	1055.8
12.5°	1045.7	1044.0	1042.3	1049.1	1047.4
15°	1032.2	1032.2	1030.5	1039.0	1037.3
17.5°	1015.4	1017.0	1018.7	1025.5	1027.2
20°	996.8	1000.2	1001.9	1012.0	1012.0
22.5°	979.9	981.6	985.0	995.1	995.1
25°	958.0	961.4	968.1	976.6	978.3
27.5°	936.1	937.8	946.2	958.0	959.7
30°	907.4	912.5	922.6	936.1	937.8
32.5°	882.1	887.2	899.0	912.5	915.8
35°	850.1	856.8	870.3	887.2	890.5
37.5°	821.4	826.5	843.3	861.9	866.9
40°	786.0	796.1	813.0	834.9	843.3
42.5°	750.6	760.7	780.9	809.6	819.7
45°	713.4	725.3	750.6	782.6	796.1
47.5°	676.3	689.8	718.5	755.6	770.8
50°	634.2	651.0	686.5	728.6	745.5
52.5°	593.7	613.9	652.7	700.0	721.9
55°	551.5	571.8	622.4	671.3	694.9
57.5°	504.3	531.3	587.0	642.6	667.9
60°	460.5	485.8	553.2	613.9	639.2
62.5°	413.2	447.0	519.5	583.6	608.9
65°	364.3	401.4	484.1	548.2	573.5
67.5°	320.5	360.9	448.6	512.7	538.0
70°	268.2	318.8	409.9	473.9	499.2
72.5°	219.3	274.9	369.4	431.8	455.4
75°	172.0	234.4	327.2	382.9	394.7
77.5°	128.2	194.0	283.4	307.0	298.5
80°	91.1	155.2	220.9	209.1	214.2
82.5°	59.0	118.1	136.6	155.2	160.2
85°	33.7	69.2	84.3	91.1	94.5
87.5°	15.2	25.3	33.7	33.7	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)