

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: P276447

Luminaire Tested: **24CZ2-40-S-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

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: P276447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-S-UNV-L93050-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3130.4 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

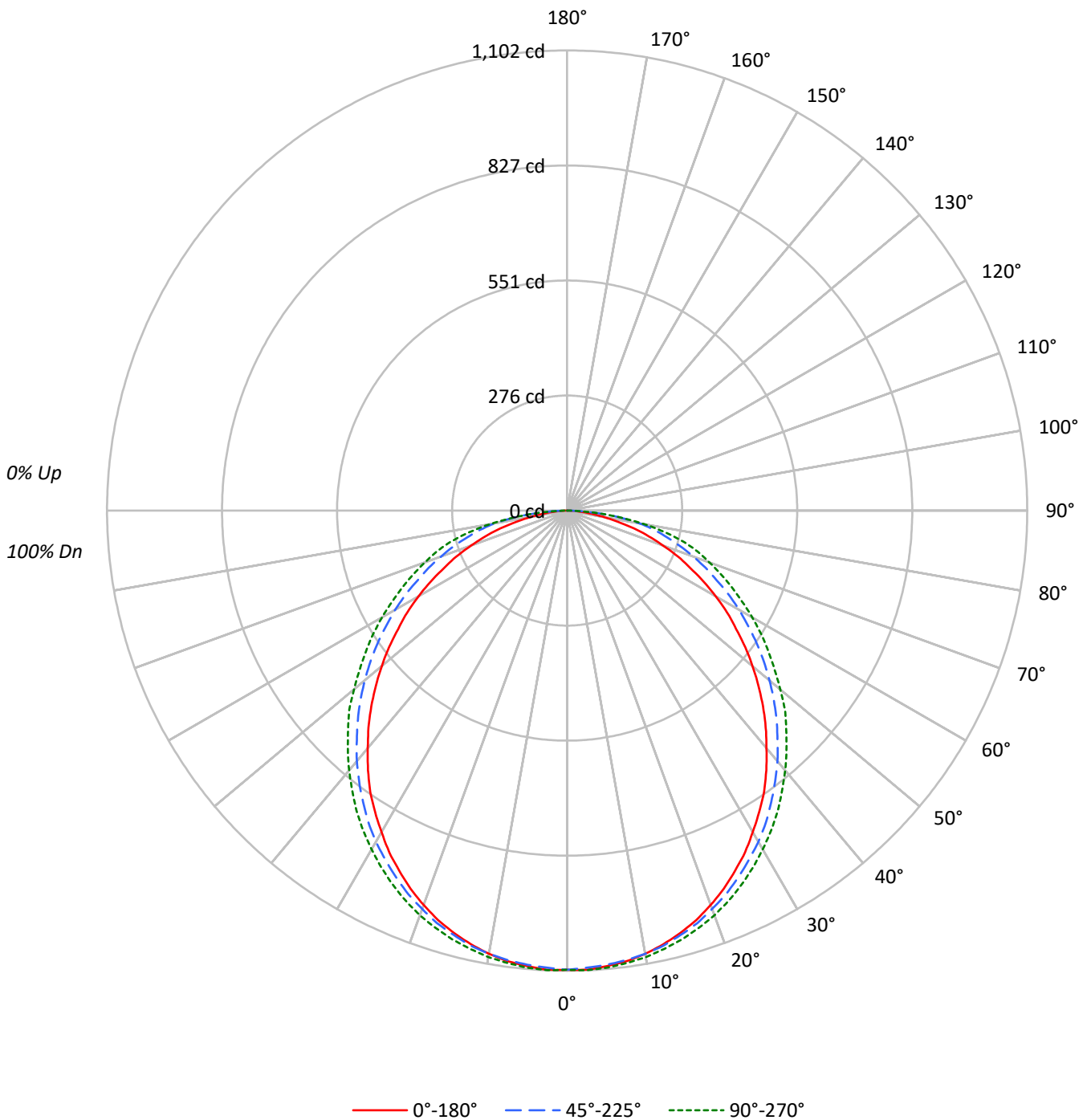
Input Watts (W): 31.110453
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1480	1480	1480
5°	1479	1475	1484
10°	1473	1473	1483
15°	1458	1465	1481
20°	1439	1454	1476
25°	1413	1439	1467
30°	1381	1423	1455
35°	1351	1400	1444
40°	1305	1376	1427
45°	1262	1349	1412
50°	1213	1324	1394
55°	1159	1299	1381
60°	1105	1279	1378
65°	1035	1257	1387
70°	958	1264	1424
75°	858	1287	1504
80°	693	1364	1471
85°	522	1198	1167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	3.3
10°-20°	297.5	9.5
20°-30°	447.2	14.3
30°-40°	532.7	17.0
40°-50°	545.2	17.4
50°-60°	490.8	15.7
60°-70°	385.5	12.3
70°-80°	250.2	8.0
80°-90°	77.4	2.5
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°	848.8	27.1
0°-40°	1381.5	44.1
0°-60°	2417.4	77.2
0°-90°	3130.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3130.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1095	1097	1092	1098	1099	104
15°	1047	1050	1052	1061	1063	295
25°	952	960	970	985	988	438
35°	822	832	852	873	879	513
45°	663	679	709	736	742	511
55°	494	516	554	583	589	443
65°	325	350	395	428	436	324
75°	165	197	248	281	289	175
85°	34	63	78	76	76	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1099.7	1099.7	1099.7	1099.7	1099.7
2.5°	1100.7	1100.7	1095.8	1100.7	1101.7
5°	1094.8	1096.8	1091.8	1097.8	1098.7
7.5°	1088.8	1088.8	1085.8	1091.8	1092.8
10°	1077.9	1078.9	1077.9	1084.8	1085.8
12.5°	1063.9	1065.9	1066.9	1073.9	1074.9
15°	1047.0	1050.0	1052.0	1061.0	1062.9
17.5°	1028.1	1031.1	1036.1	1046.0	1048.0
20°	1005.3	1009.3	1015.2	1028.1	1031.1
22.5°	980.4	984.4	994.3	1006.3	1011.2
25°	951.6	959.5	969.5	985.4	988.4
27.5°	922.7	929.7	942.6	959.5	963.5
30°	888.9	899.9	915.8	932.7	936.7
32.5°	856.1	867.1	886.0	903.9	908.8
35°	822.3	832.3	852.1	873.0	879.0
37.5°	783.5	796.5	818.3	839.2	845.2
40°	742.8	758.7	783.5	805.4	812.4
42.5°	704.0	720.9	745.8	769.6	777.6
45°	663.2	679.1	709.0	735.8	741.8
47.5°	621.5	639.4	671.2	698.0	708.0
50°	579.7	598.6	632.4	660.2	666.2
52.5°	537.9	557.8	593.6	623.5	626.4
55°	494.2	516.1	553.8	582.7	588.6
57.5°	454.4	473.3	514.1	543.9	550.9
60°	410.7	431.5	475.3	503.1	512.1
62.5°	368.9	390.8	436.5	464.4	472.3
65°	325.1	350.0	394.8	427.6	435.5
67.5°	287.4	311.2	359.0	390.8	398.7
70°	243.6	270.5	321.2	354.0	361.9
72.5°	205.8	233.7	284.4	316.2	328.1
75°	165.1	196.9	247.6	281.4	289.4
77.5°	125.3	162.1	213.8	239.6	239.6
80°	89.5	128.3	176.0	187.9	189.9
82.5°	58.7	96.5	130.3	129.3	129.3
85°	33.8	62.6	77.6	75.6	75.6
87.5°	12.9	25.9	27.8	27.8	26.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)