

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: P276699

Luminaire Tested: **24CZ2-35-S-UNV-L92765-W2A1-U-4000K**

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: P276699
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: 24CZ2-35-S-UNV-L92765-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3123.1 lumens
Efficiency: N/A
Efficacy: 118.7 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

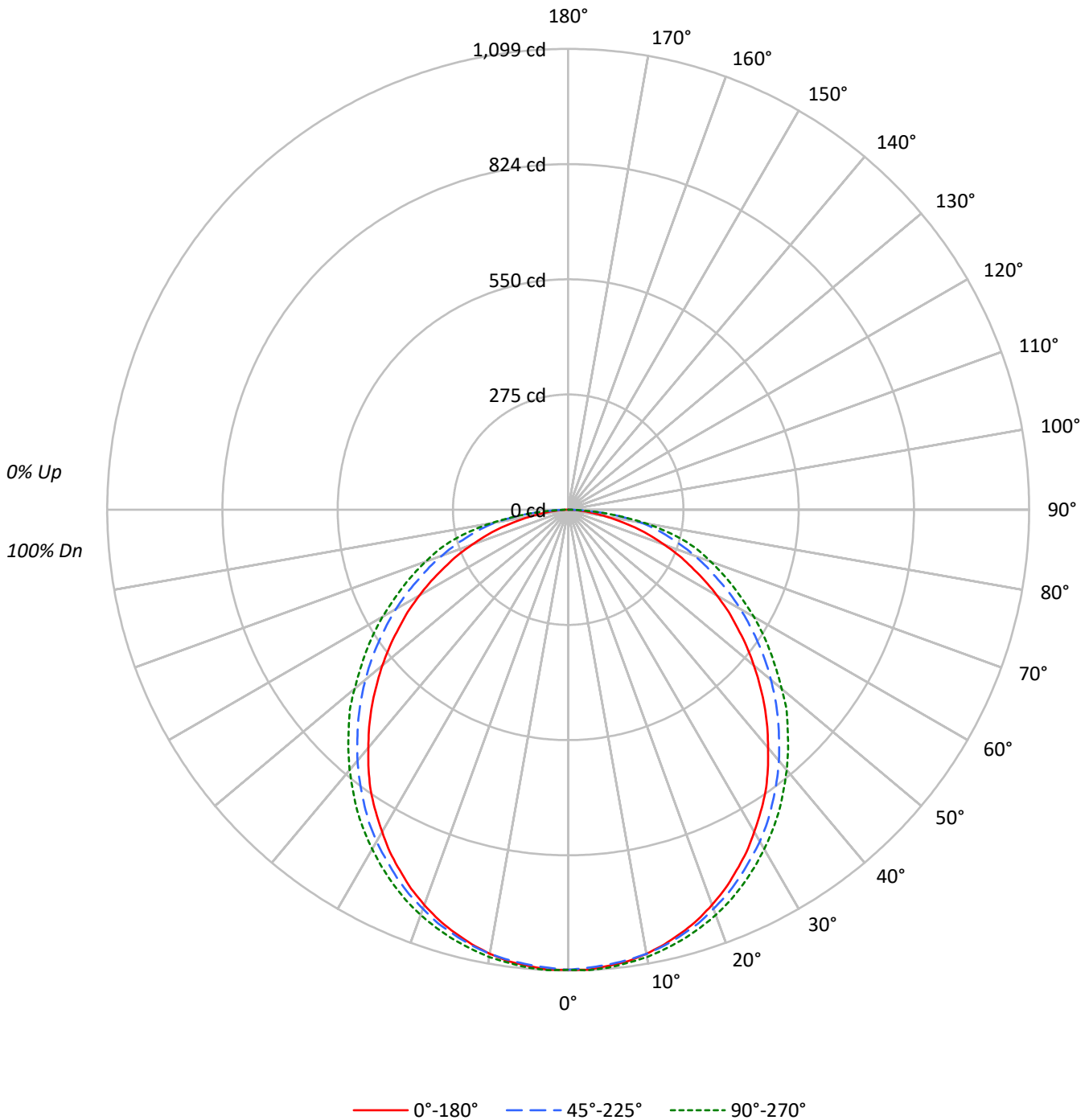
Input Watts (W): 26.319
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1476	1476	1476
5°	1475	1471	1481
10°	1469	1469	1480
15°	1455	1462	1477
20°	1436	1450	1473
25°	1409	1436	1464
30°	1378	1420	1452
35°	1348	1396	1440
40°	1302	1373	1424
45°	1259	1346	1408
50°	1211	1321	1391
55°	1156	1296	1378
60°	1102	1276	1375
65°	1033	1254	1383
70°	956	1260	1421
75°	856	1284	1501
80°	692	1361	1468
85°	520	1195	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.9	3.3
10°-20°	296.8	9.5
20°-30°	446.1	14.3
30°-40°	531.4	17.0
40°-50°	543.9	17.4
50°-60°	489.7	15.7
60°-70°	384.6	12.3
70°-80°	249.6	8.0
80°-90°	77.2	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°	846.8	27.1
0°-40°	1378.2	44.1
0°-60°	2411.8	77.2
0°-90°	3123.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3123.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1092	1094	1089	1095	1096	104
15°	1045	1048	1050	1058	1060	295
25°	949	957	967	983	986	437
35°	820	830	850	871	877	512
45°	662	678	707	734	740	510
55°	493	515	553	581	587	442
65°	324	349	394	427	434	323
75°	165	196	247	281	289	174
85°	34	62	77	75	75	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.2	1097.2	1097.2	1097.2	1097.2
2.5°	1098.2	1098.2	1093.2	1098.2	1099.2
5°	1092.2	1094.2	1089.2	1095.2	1096.2
7.5°	1086.3	1086.3	1083.3	1089.2	1090.2
10°	1075.4	1076.3	1075.4	1082.3	1083.3
12.5°	1061.5	1063.4	1064.4	1071.4	1072.4
15°	1044.6	1047.6	1049.6	1058.5	1060.5
17.5°	1025.8	1028.7	1033.7	1043.6	1045.6
20°	1002.9	1006.9	1012.9	1025.8	1028.7
22.5°	978.1	982.1	992.0	1003.9	1008.9
25°	949.4	957.3	967.2	983.1	986.1
27.5°	920.6	927.5	940.4	957.3	961.3
30°	886.9	897.8	913.7	930.5	934.5
32.5°	854.1	865.0	883.9	901.7	906.7
35°	820.4	830.3	850.2	871.0	876.9
37.5°	781.7	794.6	816.4	837.3	843.2
40°	741.0	756.9	781.7	803.5	810.5
42.5°	702.4	719.2	744.0	767.8	775.8
45°	661.7	677.6	707.3	734.1	740.0
47.5°	620.0	637.9	669.6	696.4	706.3
50°	578.3	597.2	630.9	658.7	664.7
52.5°	536.7	556.5	592.2	622.0	625.0
55°	493.0	514.9	552.6	581.3	587.3
57.5°	453.4	472.2	512.9	542.6	549.6
60°	409.7	430.5	474.2	502.0	510.9
62.5°	368.0	389.9	435.5	463.3	471.2
65°	324.4	349.2	393.8	426.6	434.5
67.5°	286.7	310.5	358.1	389.9	397.8
70°	243.0	269.8	320.4	353.2	361.1
72.5°	205.3	233.1	283.7	315.5	327.4
75°	164.7	196.4	247.0	280.7	288.7
77.5°	125.0	161.7	213.3	239.1	239.1
80°	89.3	128.0	175.6	187.5	189.5
82.5°	58.5	96.2	130.0	129.0	129.0
85°	33.7	62.5	77.4	75.4	75.4
87.5°	12.9	25.8	27.8	27.8	26.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)