

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: P276705

Luminaire Tested: **24CZ2-40-S-UNV-L92765-W2A1-U-2700K**

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: P276705
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-L92765-W2A1-U-2700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3152.9 lumens
Efficiency: N/A
Efficacy: 104.0 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

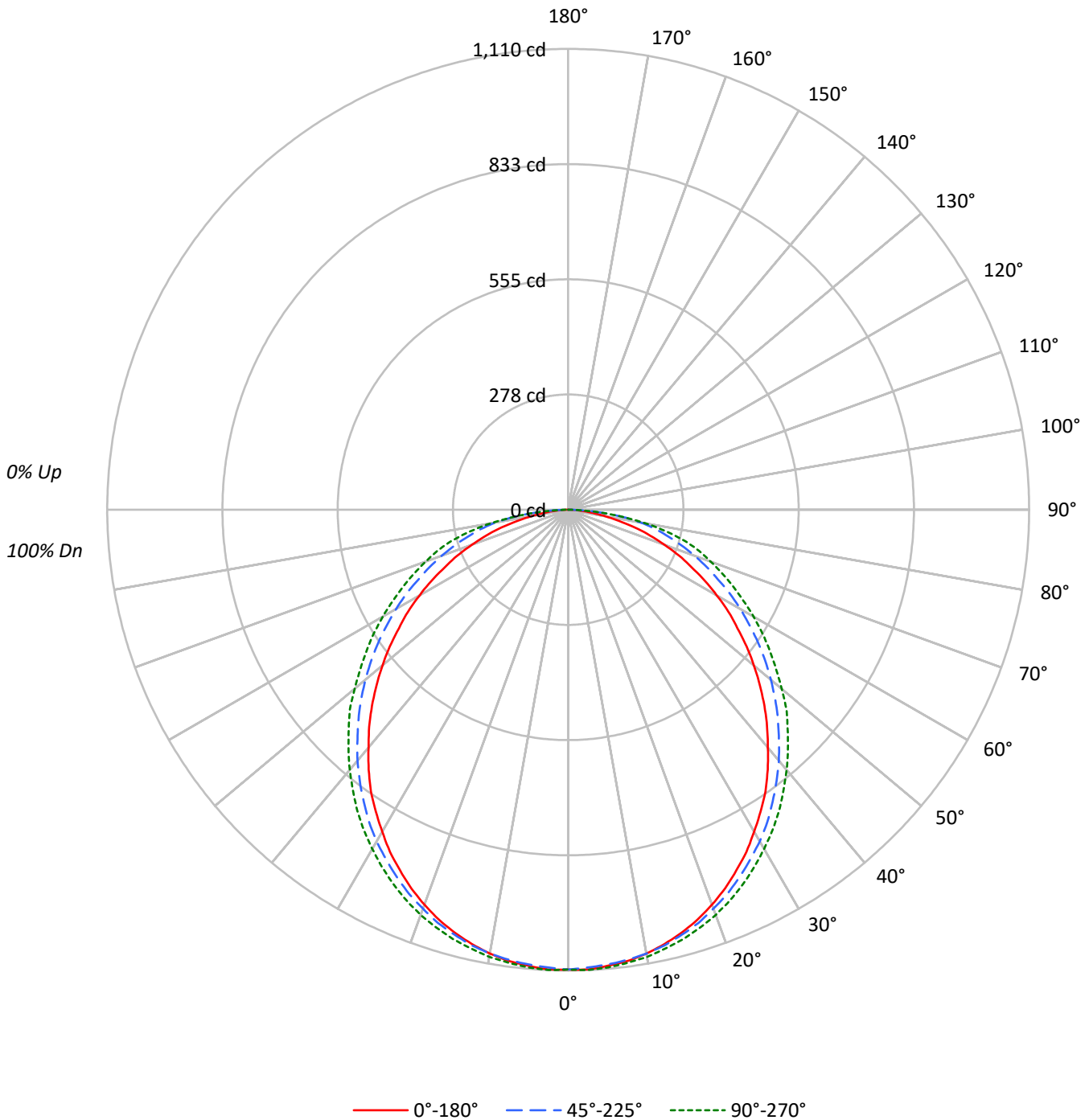
Input Watts (W): 30.318
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1490	1490	1490
5°	1489	1485	1495
10°	1483	1483	1494
15°	1469	1476	1491
20°	1450	1464	1487
25°	1423	1450	1478
30°	1391	1433	1466
35°	1360	1410	1454
40°	1314	1386	1437
45°	1271	1359	1422
50°	1222	1333	1405
55°	1167	1308	1391
60°	1113	1288	1388
65°	1043	1266	1397
70°	965	1273	1434
75°	864	1297	1515
80°	698	1374	1482
85°	526	1206	1175



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	3.3
10°-20°	299.6	9.5
20°-30°	450.4	14.3
30°-40°	536.5	17.0
40°-50°	549.1	17.4
50°-60°	494.3	15.7
60°-70°	388.2	12.3
70°-80°	252.0	8.0
80°-90°	77.9	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°	854.9	27.1
0°-40°	1391.4	44.1
0°-60°	2434.8	77.2
0°-90°	3152.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3152.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1108	1108	1108	1108	1108	
5°	1103	1105	1100	1106	1107	105
15°	1055	1058	1060	1069	1071	297
25°	958	966	976	992	996	442
35°	828	838	858	879	885	517
45°	668	684	714	741	747	515
55°	498	520	558	587	593	446
65°	328	352	398	431	439	326
75°	166	198	249	283	291	176
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°	1107.7	1107.7	1107.7	1107.7	1107.7
2.5°	1108.7	1108.7	1103.6	1108.7	1109.7
5°	1102.6	1104.6	1099.6	1105.6	1106.7
7.5°	1096.6	1096.6	1093.6	1099.6	1100.6
10°	1085.6	1086.6	1085.6	1092.6	1093.6
12.5°	1071.6	1073.6	1074.6	1081.6	1082.6
15°	1054.6	1057.6	1059.6	1068.6	1070.6
17.5°	1035.5	1038.5	1043.6	1053.6	1055.6
20°	1012.5	1016.5	1022.5	1035.5	1038.5
22.5°	987.5	991.5	1001.5	1013.5	1018.5
25°	958.4	966.4	976.5	992.5	995.5
27.5°	929.4	936.4	949.4	966.4	970.4
30°	895.3	906.4	922.4	939.4	943.4
32.5°	862.3	873.3	892.3	910.4	915.4
35°	828.2	838.3	858.3	879.3	885.3
37.5°	789.2	802.2	824.2	845.3	851.3
40°	748.1	764.1	789.2	811.2	818.2
42.5°	709.1	726.1	751.1	775.2	783.2
45°	668.0	684.0	714.1	741.1	747.1
47.5°	625.9	644.0	676.0	703.0	713.1
50°	583.9	602.9	636.9	665.0	671.0
52.5°	541.8	561.8	597.9	627.9	630.9
55°	497.7	519.8	557.8	586.9	592.9
57.5°	457.7	476.7	517.8	547.8	554.8
60°	413.6	434.6	478.7	506.8	515.8
62.5°	371.6	393.6	439.7	467.7	475.7
65°	327.5	352.5	397.6	430.6	438.7
67.5°	289.4	313.5	361.5	393.6	401.6
70°	245.4	272.4	323.5	356.5	364.5
72.5°	207.3	235.4	286.4	318.5	330.5
75°	166.2	198.3	249.4	283.4	291.4
77.5°	126.2	163.2	215.3	241.4	241.4
80°	90.1	129.2	177.3	189.3	191.3
82.5°	59.1	97.1	131.2	130.2	130.2
85°	34.1	63.1	78.1	76.1	76.1
87.5°	13.0	26.0	28.0	28.0	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)