

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: P276029

Luminaire Tested: **24CZ2-40-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276029
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-UNV-L93050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3515.4 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

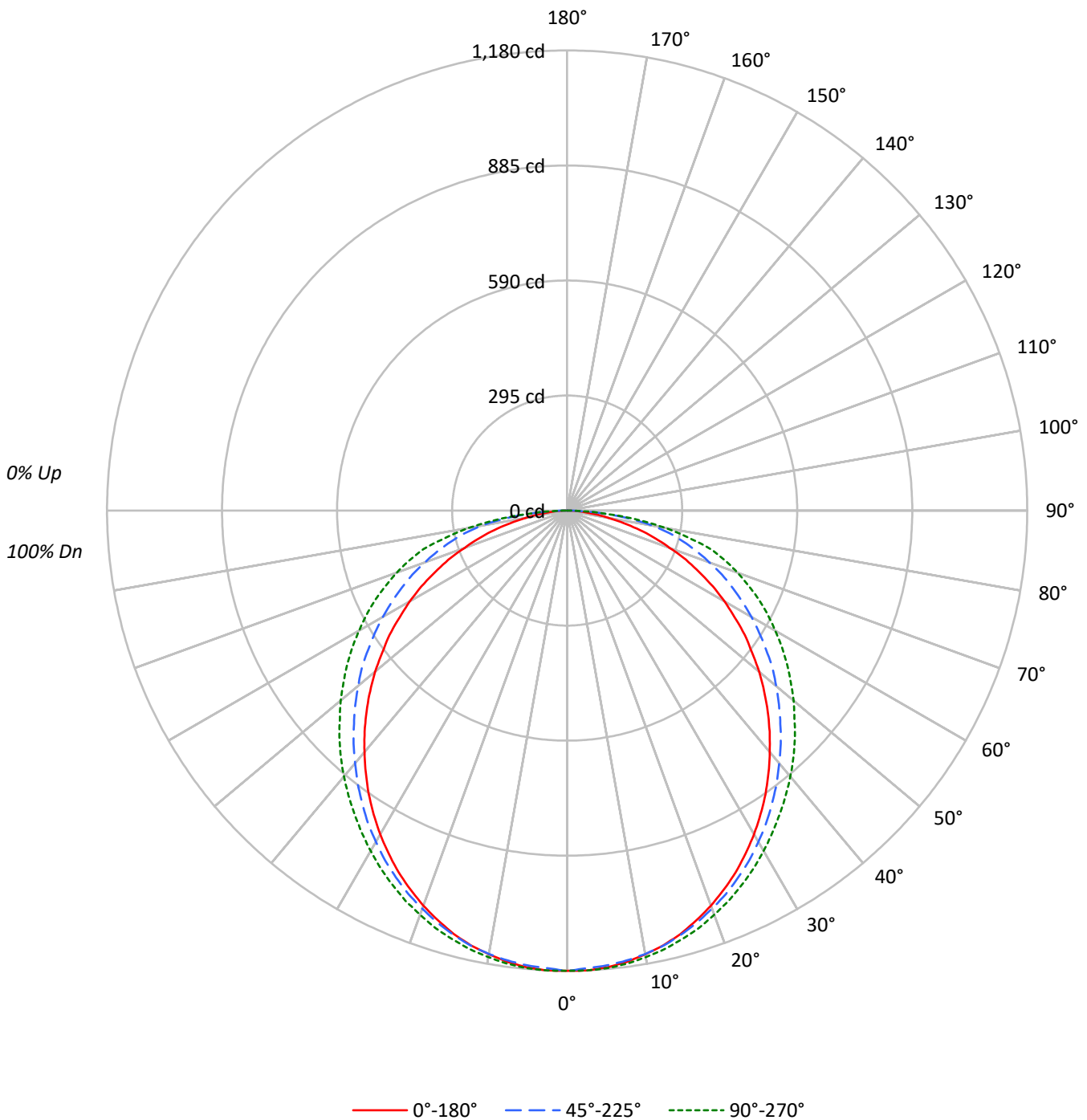
Input Watts (W): 31.201686
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1588	1588	1588
5°	1588	1581	1591
10°	1579	1577	1589
15°	1566	1569	1585
20°	1544	1556	1579
25°	1519	1541	1573
30°	1489	1524	1566
35°	1457	1505	1561
40°	1420	1486	1564
45°	1384	1471	1572
50°	1346	1464	1586
55°	1304	1461	1616
60°	1253	1468	1658
65°	1188	1490	1729
70°	1103	1528	1828
75°	1006	1604	1982
80°	828	1727	1982
85°	634	1593	1703



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	3.2
10°-20°	318.7	9.1
20°-30°	479.6	13.6
30°-40°	574.7	16.3
40°-50°	598.9	17.0
50°-60°	557.2	15.9
60°-70°	458.9	13.1
70°-80°	312.6	8.9
80°-90°	103.2	2.9
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°	909.9	25.9
0°-40°	1484.6	42.2
0°-60°	2640.7	75.1
0°-90°	3515.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3515.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1176	1176	1171	1177	1178	112
15°	1124	1125	1126	1137	1138	317
25°	1023	1028	1038	1056	1059	471
35°	887	898	916	941	950	554
45°	727	743	773	812	826	561
55°	556	575	623	672	689	496
65°	373	405	468	523	543	370
75°	194	237	309	364	381	204
85°	41	80	103	110	110	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.3	1180.3	1180.3	1180.3	1180.3
2.5°	1180.3	1180.3	1174.4	1180.3	1180.3
5°	1175.6	1175.6	1170.9	1176.8	1177.9
7.5°	1167.4	1168.5	1163.9	1170.9	1172.1
10°	1155.6	1156.8	1154.5	1161.5	1162.7
12.5°	1141.6	1142.7	1142.7	1151.0	1152.1
15°	1124.0	1125.1	1126.3	1136.9	1138.0
17.5°	1101.7	1105.2	1107.5	1120.4	1122.8
20°	1078.2	1081.7	1086.4	1100.5	1102.8
22.5°	1051.2	1055.9	1064.1	1079.4	1082.9
25°	1023.1	1027.8	1038.3	1055.9	1059.4
27.5°	991.4	998.4	1011.3	1030.1	1034.8
30°	958.5	965.6	980.8	1000.8	1007.8
32.5°	923.3	932.7	950.3	972.6	979.7
35°	887.0	897.5	916.3	940.9	950.3
37.5°	848.3	860.0	882.3	909.3	921.0
40°	808.4	822.4	845.9	877.6	890.5
42.5°	768.5	781.4	810.7	844.7	858.8
45°	727.4	742.7	773.2	811.9	826.0
47.5°	685.2	700.4	736.8	777.9	790.8
50°	642.9	658.2	699.3	742.7	757.9
52.5°	597.2	617.1	664.1	707.5	722.7
55°	556.1	574.9	623.0	672.3	688.7
57.5°	509.2	531.5	584.3	635.9	653.5
60°	465.8	489.2	545.6	598.4	616.0
62.5°	421.2	447.0	506.8	560.8	580.8
65°	373.1	404.8	468.1	523.3	543.2
67.5°	329.7	362.5	429.4	485.7	503.3
70°	280.4	320.3	388.3	444.7	464.6
72.5°	238.2	278.1	349.6	404.8	424.7
75°	193.6	237.0	308.6	363.7	381.3
77.5°	149.0	197.1	268.7	310.9	316.8
80°	106.8	157.2	222.9	247.6	255.8
82.5°	75.1	120.8	164.3	180.7	185.4
85°	41.1	79.8	103.2	110.3	110.3
87.5°	17.6	34.0	41.1	42.2	43.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)