

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: P272070

Luminaire Tested: **24CZ2-40HE-UNV-L935-CD1-U**

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: P272070  
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: 24CZ2-40HE-UNV-L935-CD1-U  
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (168) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3407.0 lumens  
Efficiency: N/A  
Efficacy: 111.3 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

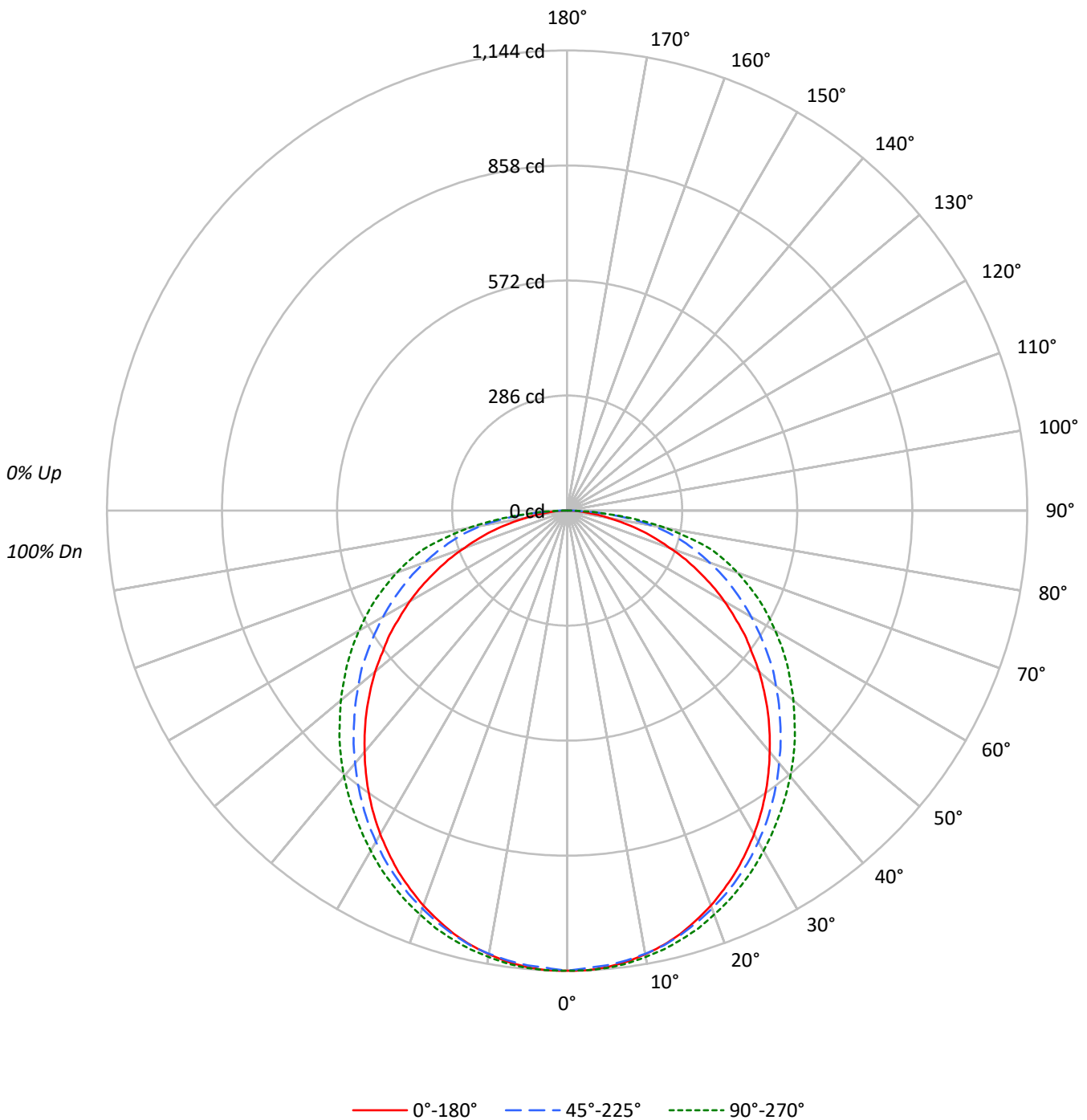
Input Watts (W): 30.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1539	1539	1539
5°	1539	1533	1542
10°	1530	1529	1539
15°	1517	1521	1536
20°	1496	1508	1530
25°	1472	1494	1524
30°	1443	1477	1517
35°	1412	1459	1513
40°	1376	1440	1516
45°	1341	1426	1523
50°	1304	1419	1537
55°	1264	1416	1566
60°	1215	1423	1607
65°	1151	1444	1676
70°	1069	1481	1771
75°	975	1554	1921
80°	802	1674	1921
85°	614	1545	1650



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.2	3.2
10°-20°	308.9	9.1
20°-30°	464.8	13.6
30°-40°	557.0	16.3
40°-50°	580.4	17.0
50°-60°	540.0	15.9
60°-70°	444.8	13.1
70°-80°	302.9	8.9
80°-90°	100.0	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°	881.8	25.9
0°-40°	1438.8	42.2
0°-60°	2559.3	75.1
0°-90°	3407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3407.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1139	1139	1135	1140	1142	108
15°	1089	1090	1092	1102	1103	307
25°	992	996	1006	1023	1027	456
35°	860	870	888	912	921	537
45°	705	720	749	787	800	544
55°	539	557	604	652	668	480
65°	362	392	454	507	526	359
75°	188	230	299	352	370	198
85°	40	77	100	107	107	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1143.9	1143.9	1143.9	1143.9	1143.9
2.5°	1143.9	1143.9	1138.2	1143.9	1143.9
5°	1139.3	1139.3	1134.8	1140.5	1141.6
7.5°	1131.4	1132.5	1128.0	1134.8	1135.9
10°	1120.0	1121.1	1118.9	1125.7	1126.8
12.5°	1106.4	1107.5	1107.5	1115.5	1116.6
15°	1089.3	1090.4	1091.6	1101.8	1103.0
17.5°	1067.7	1071.1	1073.4	1085.9	1088.2
20°	1045.0	1048.4	1052.9	1066.6	1068.8
22.5°	1018.8	1023.4	1031.3	1046.1	1049.5
25°	991.5	996.1	1006.3	1023.4	1026.8
27.5°	960.8	967.6	980.2	998.3	1002.9
30°	929.0	935.8	950.6	969.9	976.7
32.5°	894.9	904.0	921.0	942.6	949.5
35°	859.6	869.9	888.0	911.9	921.0
37.5°	822.1	833.5	855.1	881.2	892.6
40°	783.4	797.1	819.8	850.5	863.0
42.5°	744.8	757.3	785.7	818.7	832.3
45°	705.0	719.8	749.3	786.8	800.5
47.5°	664.0	678.8	714.1	753.9	766.4
50°	623.1	637.9	677.7	719.8	734.5
52.5°	578.8	598.1	643.6	685.7	700.4
55°	539.0	557.2	603.8	651.5	667.5
57.5°	493.5	515.1	566.3	616.3	633.3
60°	451.4	474.2	528.7	579.9	597.0
62.5°	408.2	433.2	491.2	543.5	562.8
65°	361.6	392.3	453.7	507.1	526.5
67.5°	319.5	351.4	416.2	470.7	487.8
70°	271.8	310.4	376.4	430.9	450.3
72.5°	230.8	269.5	338.8	392.3	411.6
75°	187.6	229.7	299.0	352.5	369.5
77.5°	144.4	191.0	260.4	301.3	307.0
80°	103.5	152.4	216.0	239.9	247.9
82.5°	72.8	117.1	159.2	175.1	179.7
85°	39.8	77.3	100.1	106.9	106.9
87.5°	17.1	33.0	39.8	40.9	42.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)