

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: P295032

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

Issue Date: 12/2/2019

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: P295032  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40-HRP-UNV-L935-CD1-U  
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (84) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

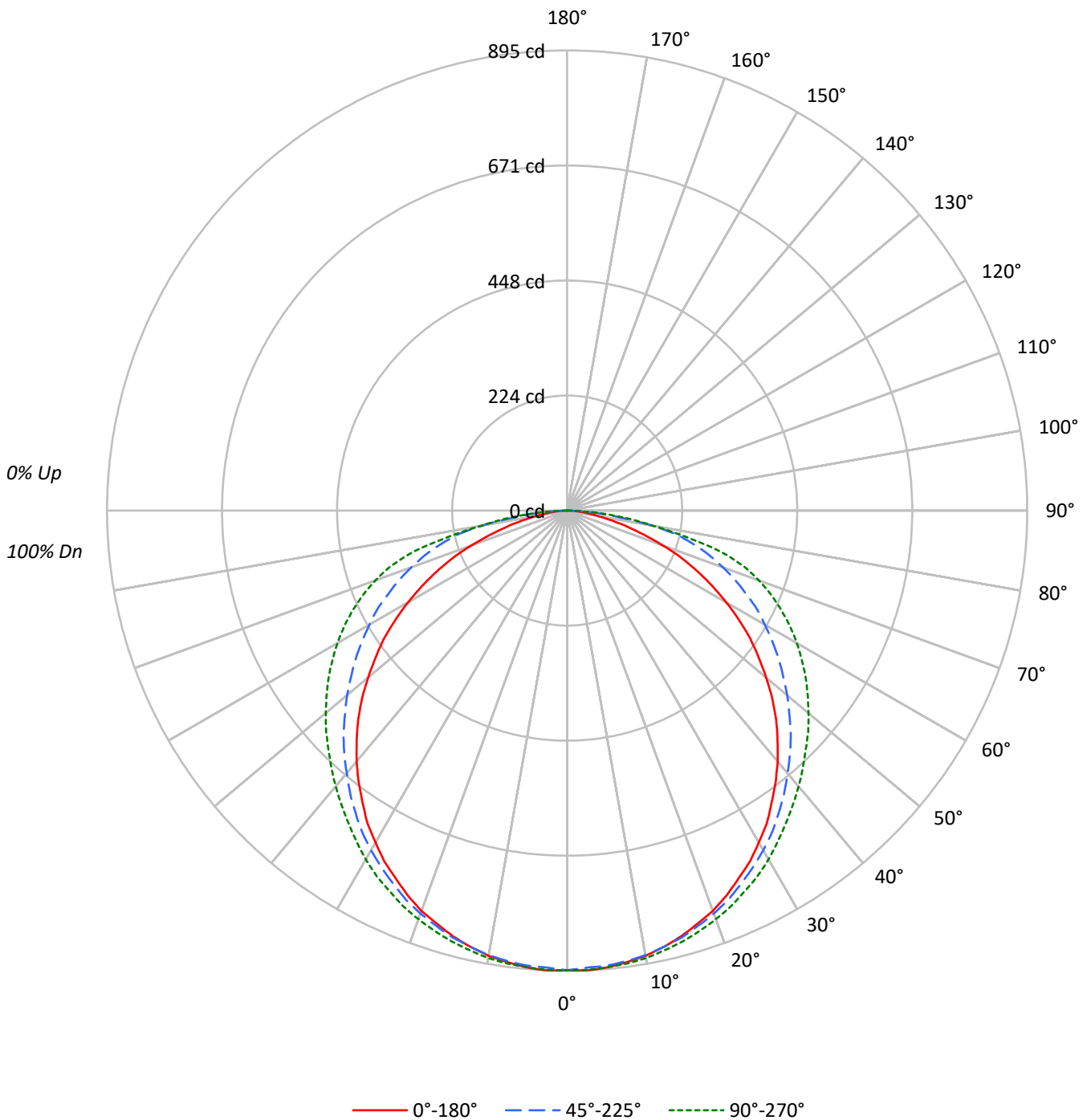
Lumens per Lamp: N/A  
Luminaire Lumens: 2756.1 lumens  
Efficiency: N/A  
Efficacy: 76.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 36.2  
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	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1203	1203	1203
5°	1205	1200	1205
10°	1201	1200	1208
15°	1194	1197	1209
20°	1186	1194	1211
25°	1172	1189	1213
30°	1158	1185	1217
35°	1139	1179	1219
40°	1119	1171	1230
45°	1093	1170	1249
50°	1058	1169	1283
55°	1020	1177	1329
60°	963	1195	1388
65°	889	1223	1466
70°	776	1266	1561
75°	630	1332	1614
80°	465	1306	1306
85°	357	962	1087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.7	3.1
10°-20°	243.3	8.8
20°-30°	370.3	13.4
30°-40°	449.7	16.3
40°-50°	475.1	17.2
50°-60°	448.3	16.3
60°-70°	372.7	13.5
70°-80°	245.2	8.9
80°-90°	66.8	2.4
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°	698.3	25.3
0°-40°	1148.0	41.7
0°-60°	2071.4	75.2
0°-90°	2756.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2756.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	892	892	888	892	892	85
15°	857	858	860	868	868	242
25°	789	794	801	815	817	364
35°	694	702	718	736	742	434
45°	575	586	615	645	656	443
55°	435	454	502	549	566	387
65°	279	312	384	441	460	276
75°	121	176	256	304	310	131
85°	23	51	62	69	70	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	894.2	894.2	894.2	894.2	894.2
2.5°	895.4	894.2	889.6	894.2	894.2
5°	891.9	891.9	888.5	891.9	891.9
7.5°	886.2	886.2	883.9	888.5	888.5
10°	879.2	879.2	878.1	883.9	883.9
12.5°	868.9	870.0	868.9	875.8	875.8
15°	857.3	858.5	859.6	867.7	867.7
17.5°	842.3	844.6	846.9	856.2	857.3
20°	828.5	829.6	834.2	844.6	845.8
22.5°	810.0	813.5	819.2	829.6	833.1
25°	789.2	793.9	800.8	814.6	816.9
27.5°	769.6	773.1	782.3	797.3	801.9
30°	745.4	751.2	762.7	777.7	783.5
32.5°	722.3	728.1	741.9	758.1	762.7
35°	693.5	701.5	717.7	736.2	741.9
37.5°	665.8	673.8	693.5	714.2	721.2
40°	636.9	646.2	666.9	691.2	700.4
42.5°	605.8	618.5	641.5	668.1	678.5
45°	574.6	586.2	615.0	645.0	656.5
47.5°	541.2	555.0	586.2	621.9	635.8
50°	505.4	522.7	558.5	597.7	612.7
52.5°	469.6	489.2	529.6	573.5	589.6
55°	435.0	453.5	501.9	549.2	566.5
57.5°	396.9	420.0	473.1	523.8	541.2
60°	357.7	383.1	444.2	497.3	515.8
62.5°	318.5	347.3	416.5	469.6	489.2
65°	279.2	311.5	384.2	440.8	460.4
67.5°	241.2	276.9	354.2	410.8	430.4
70°	197.3	242.3	321.9	377.3	396.9
72.5°	156.9	208.8	290.8	342.7	360.0
75°	121.2	176.5	256.2	303.5	310.4
77.5°	88.8	144.2	220.4	236.5	237.7
80°	60.0	115.4	168.5	166.2	168.5
82.5°	39.2	86.5	106.2	118.8	120.0
85°	23.1	50.8	62.3	69.2	70.4
87.5°	11.5	17.3	21.9	23.1	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)