

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: P295016

Luminaire Tested: **24CZ2-30-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: P295016  
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: 24CZ2-30-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: 1991.2 lumens  
Efficiency: N/A  
Efficacy: 82.3 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

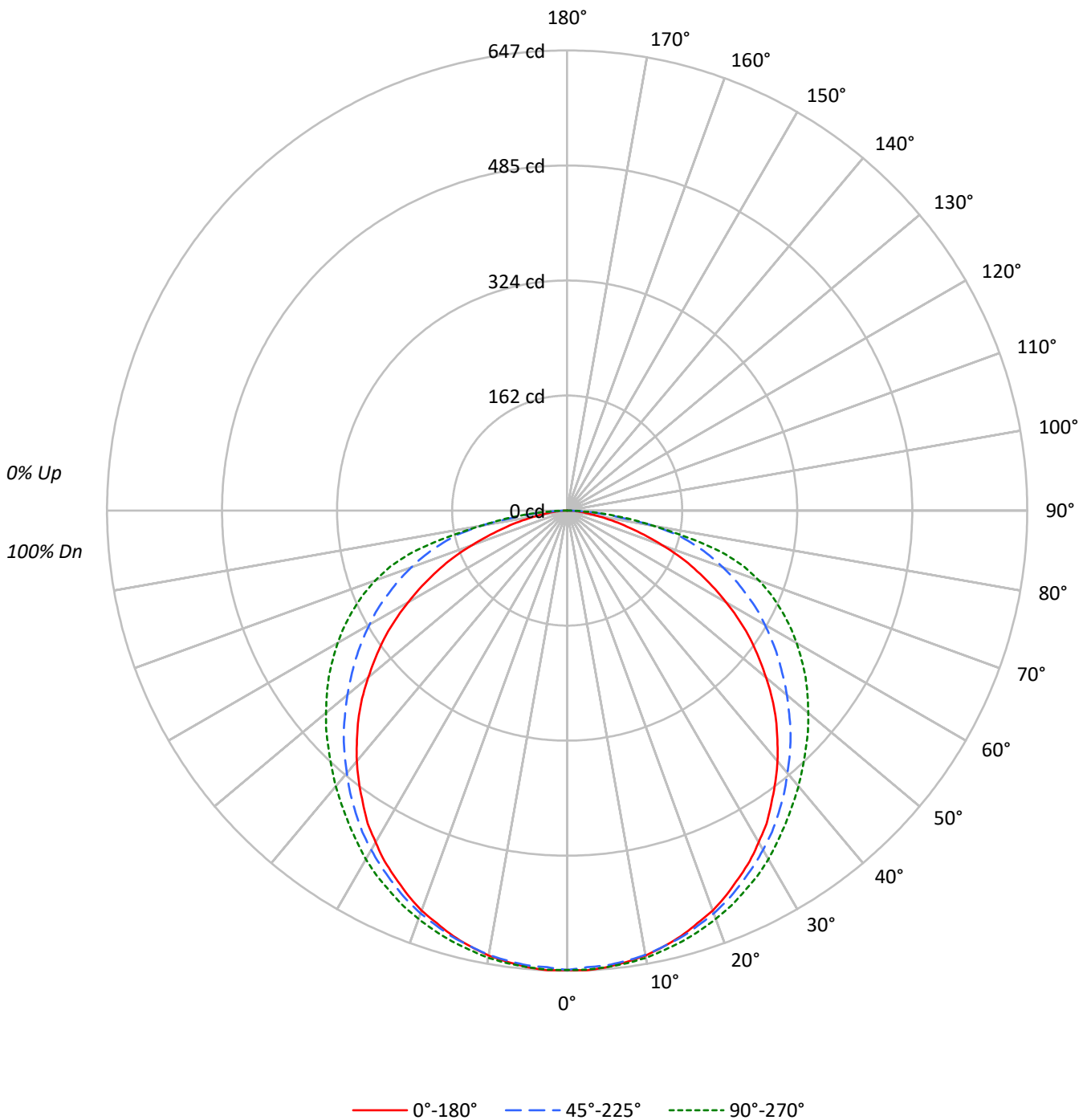
Input Watts (W): 24.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	869	869	869
5°	870	867	870
10°	868	867	872
15°	863	865	873
20°	857	863	875
25°	847	859	876
30°	837	856	879
35°	823	852	880
40°	808	846	889
45°	790	845	903
50°	764	845	926
55°	737	851	960
60°	695	864	1003
65°	642	884	1059
70°	561	915	1128
75°	455	962	1166
80°	336	943	943
85°	258	695	784



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.2	3.1
10°-20°	175.7	8.8
20°-30°	267.5	13.4
30°-40°	324.9	16.3
40°-50°	343.2	17.2
50°-60°	323.9	16.3
60°-70°	269.3	13.5
70°-80°	177.2	8.9
80°-90°	48.3	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°	504.5	25.3
0°-40°	829.3	41.7
0°-60°	1496.4	75.2
0°-90°	1991.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1991.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	644	644	642	644	644	61
15°	619	620	621	627	627	175
25°	570	574	578	588	590	263
35°	501	507	518	532	536	314
45°	415	424	444	466	474	320
55°	314	328	363	397	409	280
65°	202	225	278	318	333	199
75°	88	128	185	219	224	94
85°	17	37	45	50	51	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	646.0	646.0	646.0	646.0	646.0
2.5°	646.9	646.0	642.7	646.0	646.0
5°	644.4	644.4	641.9	644.4	644.4
7.5°	640.2	640.2	638.5	641.9	641.9
10°	635.2	635.2	634.4	638.5	638.5
12.5°	627.7	628.5	627.7	632.7	632.7
15°	619.4	620.2	621.0	626.9	626.9
17.5°	608.5	610.2	611.9	618.5	619.4
20°	598.5	599.3	602.7	610.2	611.0
22.5°	585.2	587.7	591.8	599.3	601.8
25°	570.2	573.5	578.5	588.5	590.2
27.5°	556.0	558.5	565.2	576.0	579.3
30°	538.5	542.7	551.0	561.8	566.0
32.5°	521.8	526.0	536.0	547.7	551.0
35°	501.0	506.8	518.5	531.8	536.0
37.5°	481.0	486.8	501.0	516.0	521.0
40°	460.1	466.8	481.8	499.3	506.0
42.5°	437.6	446.8	463.5	482.6	490.1
45°	415.1	423.5	444.3	466.0	474.3
47.5°	391.0	401.0	423.5	449.3	459.3
50°	365.1	377.6	403.5	431.8	442.6
52.5°	339.3	353.4	382.6	414.3	426.0
55°	314.3	327.6	362.6	396.8	409.3
57.5°	286.8	303.4	341.8	378.4	391.0
60°	258.4	276.7	320.9	359.3	372.6
62.5°	230.1	250.9	300.9	339.3	353.4
65°	201.7	225.1	277.6	318.4	332.6
67.5°	174.2	200.1	255.9	296.8	310.9
70°	142.5	175.1	232.6	272.6	286.8
72.5°	113.4	150.9	210.1	247.6	260.1
75°	87.5	127.5	185.1	219.2	224.2
77.5°	64.2	104.2	159.2	170.9	171.7
80°	43.3	83.4	121.7	120.0	121.7
82.5°	28.3	62.5	76.7	85.9	86.7
85°	16.7	36.7	45.0	50.0	50.8
87.5°	8.3	12.5	15.8	16.7	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)