

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: P274776

Luminaire Tested: **24CZ2-30HE-RDP-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: P274776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-RDP-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 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: 1714.0 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

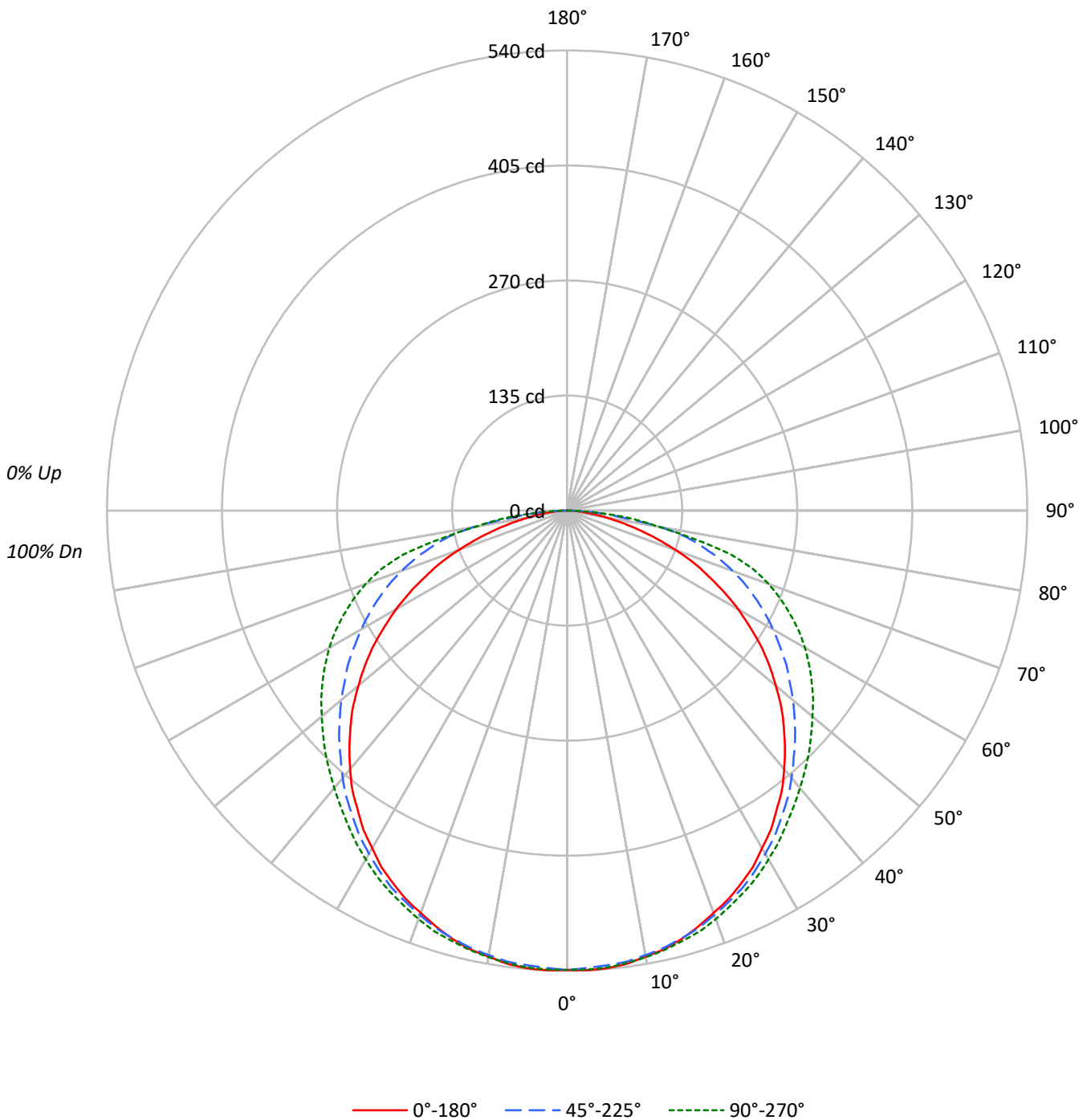
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82	82	
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67	67	
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56	56	
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47	47	
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40	40	
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35	35	
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31	31	
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27	27	
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24	24	
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22	22	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	725	725	725
5°	728	723	727
10°	726	724	727
15°	725	724	728
20°	719	723	730
25°	717	724	732
30°	711	722	734
35°	704	721	737
40°	696	720	747
45°	684	720	764
50°	669	724	787
55°	652	736	822
60°	625	751	867
65°	585	777	920
70°	532	813	990
75°	451	857	1034
80°	356	863	837
85°	262	656	735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	3.0
10°-20°	147.2	8.6
20°-30°	225.0	13.1
30°-40°	275.1	16.0
40°-50°	293.2	17.1
50°-60°	280.3	16.4
60°-70°	237.5	13.9
70°-80°	159.6	9.3
80°-90°	45.0	2.6
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°	423.3	24.7
0°-40°	698.4	40.7
0°-60°	1271.9	74.2
0°-90°	1714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	539	539	539	539	539	
5°	539	538	536	538	538	51
15°	520	520	520	524	523	147
25°	483	485	488	492	493	223
35°	428	432	439	447	449	268
45°	360	366	378	394	401	277
55°	278	288	314	338	350	248
65°	184	202	244	276	289	182
75°	87	118	165	193	199	93
85°	17	35	42	46	48	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	539.0	539.0	539.0	539.0	539.0
2.5°	539.9	539.9	537.3	539.0	539.0
5°	539.0	538.2	535.6	538.2	538.2
7.5°	536.5	535.6	533.9	536.5	535.6
10°	531.4	531.4	529.7	532.2	532.2
12.5°	527.1	526.3	525.4	528.8	528.0
15°	520.3	520.3	519.5	523.7	522.9
17.5°	511.8	512.6	513.5	516.9	517.7
20°	502.4	504.1	505.0	510.1	510.1
22.5°	493.9	494.8	496.5	501.6	501.6
25°	482.9	484.6	488.0	492.2	493.1
27.5°	471.8	472.7	476.9	482.9	483.7
30°	457.4	459.9	465.0	471.8	472.7
32.5°	444.6	447.2	453.1	459.9	461.6
35°	428.5	431.9	438.7	447.2	448.9
37.5°	414.0	416.6	425.1	434.4	437.0
40°	396.2	401.3	409.8	420.8	425.1
42.5°	378.3	383.4	393.6	408.1	413.2
45°	359.6	365.6	378.3	394.5	401.3
47.5°	340.9	347.7	362.2	380.9	388.5
50°	319.7	328.2	346.0	367.3	375.8
52.5°	299.3	309.5	329.0	352.8	363.9
55°	278.0	288.2	313.7	338.4	350.3
57.5°	254.2	267.8	295.9	323.9	336.7
60°	232.1	244.8	278.9	309.5	322.2
62.5°	208.3	225.3	261.9	294.2	306.9
65°	183.6	202.3	244.0	276.3	289.1
67.5°	161.5	181.9	226.1	258.4	271.2
70°	135.2	160.7	206.6	238.9	251.6
72.5°	110.5	138.6	186.2	217.6	229.5
75°	86.7	118.2	164.9	193.0	198.9
77.5°	64.6	97.8	142.8	154.7	150.5
80°	45.9	78.2	111.4	105.4	108.0
82.5°	29.8	59.5	68.9	78.2	80.8
85°	17.0	34.9	42.5	45.9	47.6
87.5°	7.7	12.8	17.0	17.0	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)