

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: P274783

Luminaire Tested: **24CZ2-35HE-RDP-UNV-L930-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: P274783  
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: 24CZ2-35HE-RDP-UNV-L930-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (168) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1988.0 lumens  
Efficiency: N/A  
Efficacy: 73.9 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

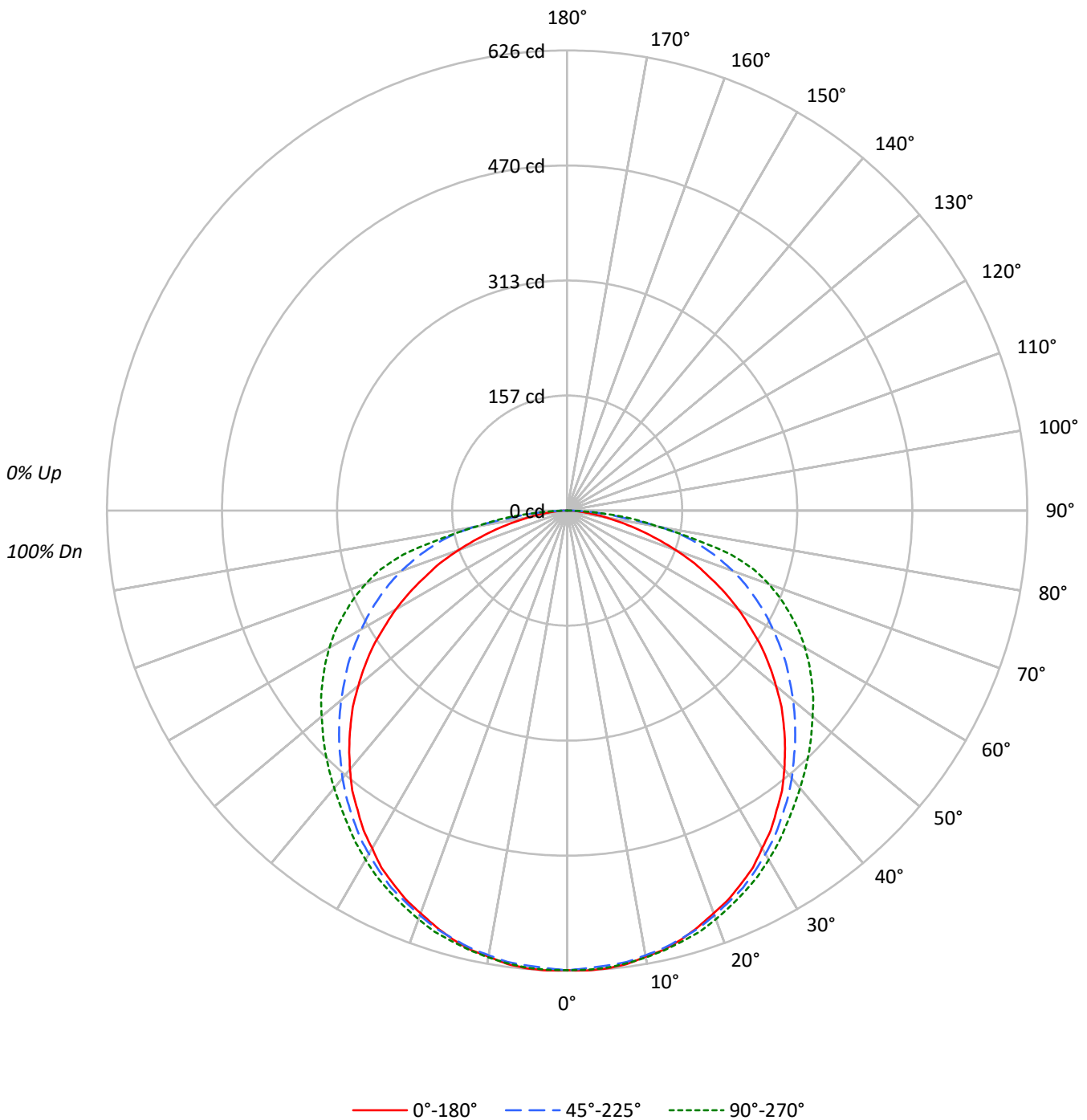
Input Watts (W): 26.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	68	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°	841	841	841
5°	844	839	843
10°	842	839	843
15°	841	839	845
20°	834	839	847
25°	832	840	849
30°	824	838	852
35°	816	836	855
40°	807	835	866
45°	794	835	886
50°	776	840	912
55°	756	854	953
60°	724	870	1006
65°	678	901	1067
70°	617	943	1148
75°	523	994	1199
80°	412	1001	970
85°	304	761	852



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.3	3.0
10°-20°	170.7	8.6
20°-30°	261.0	13.1
30°-40°	319.1	16.0
40°-50°	340.1	17.1
50°-60°	325.1	16.4
60°-70°	275.4	13.9
70°-80°	185.1	9.3
80°-90°	52.2	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°	491.0	24.7
0°-40°	810.0	40.7
0°-60°	1475.2	74.2
0°-90°	1988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1988.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	625	625	625	625	625	
5°	625	624	621	624	624	59
15°	604	604	602	607	606	170
25°	560	562	566	571	572	258
35°	497	501	509	519	521	311
45°	417	424	439	458	465	322
55°	322	334	364	392	406	287
65°	213	235	283	320	335	211
75°	101	137	191	224	231	108
85°	20	40	49	53	55	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	625.2	625.2	625.2	625.2	625.2
2.5°	626.2	626.2	623.2	625.2	625.2
5°	625.2	624.2	621.2	624.2	624.2
7.5°	622.2	621.2	619.3	622.2	621.2
10°	616.3	616.3	614.3	617.3	617.3
12.5°	611.4	610.4	609.4	613.3	612.4
15°	603.5	603.5	602.5	607.4	606.4
17.5°	593.6	594.6	595.6	599.5	600.5
20°	582.8	584.7	585.7	591.6	591.6
22.5°	572.9	573.9	575.9	581.8	581.8
25°	560.1	562.1	566.0	570.9	571.9
27.5°	547.3	548.3	553.2	560.1	561.1
30°	530.5	533.5	539.4	547.3	548.3
32.5°	515.7	518.7	525.6	533.5	535.4
35°	497.0	500.9	508.8	518.7	520.6
37.5°	480.2	483.2	493.0	503.9	506.8
40°	459.5	465.4	475.3	488.1	493.0
42.5°	438.8	444.7	456.6	473.3	479.2
45°	417.1	424.0	438.8	457.5	465.4
47.5°	395.4	403.3	420.1	441.8	450.6
50°	370.8	380.6	401.3	426.0	435.8
52.5°	347.1	358.9	381.6	409.2	422.0
55°	322.4	334.3	363.9	392.5	406.3
57.5°	294.8	310.6	343.2	375.7	390.5
60°	269.2	284.0	323.4	358.9	373.7
62.5°	241.6	261.3	303.7	341.2	356.0
65°	213.0	234.7	283.0	320.5	335.3
67.5°	187.4	211.0	262.3	299.8	314.6
70°	156.8	186.4	239.6	277.1	291.9
72.5°	128.2	160.7	215.9	252.4	266.2
75°	100.6	137.1	191.3	223.8	230.7
77.5°	74.9	113.4	165.7	179.5	174.5
80°	53.2	90.7	129.2	122.3	125.2
82.5°	34.5	69.0	79.9	90.7	93.7
85°	19.7	40.4	49.3	53.2	55.2
87.5°	8.9	14.8	19.7	19.7	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)