

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: P271986

Luminaire Tested: **22CZ2-32-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: P271986  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-32-UNV-L935-CD1-U  
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (98) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2773.0 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

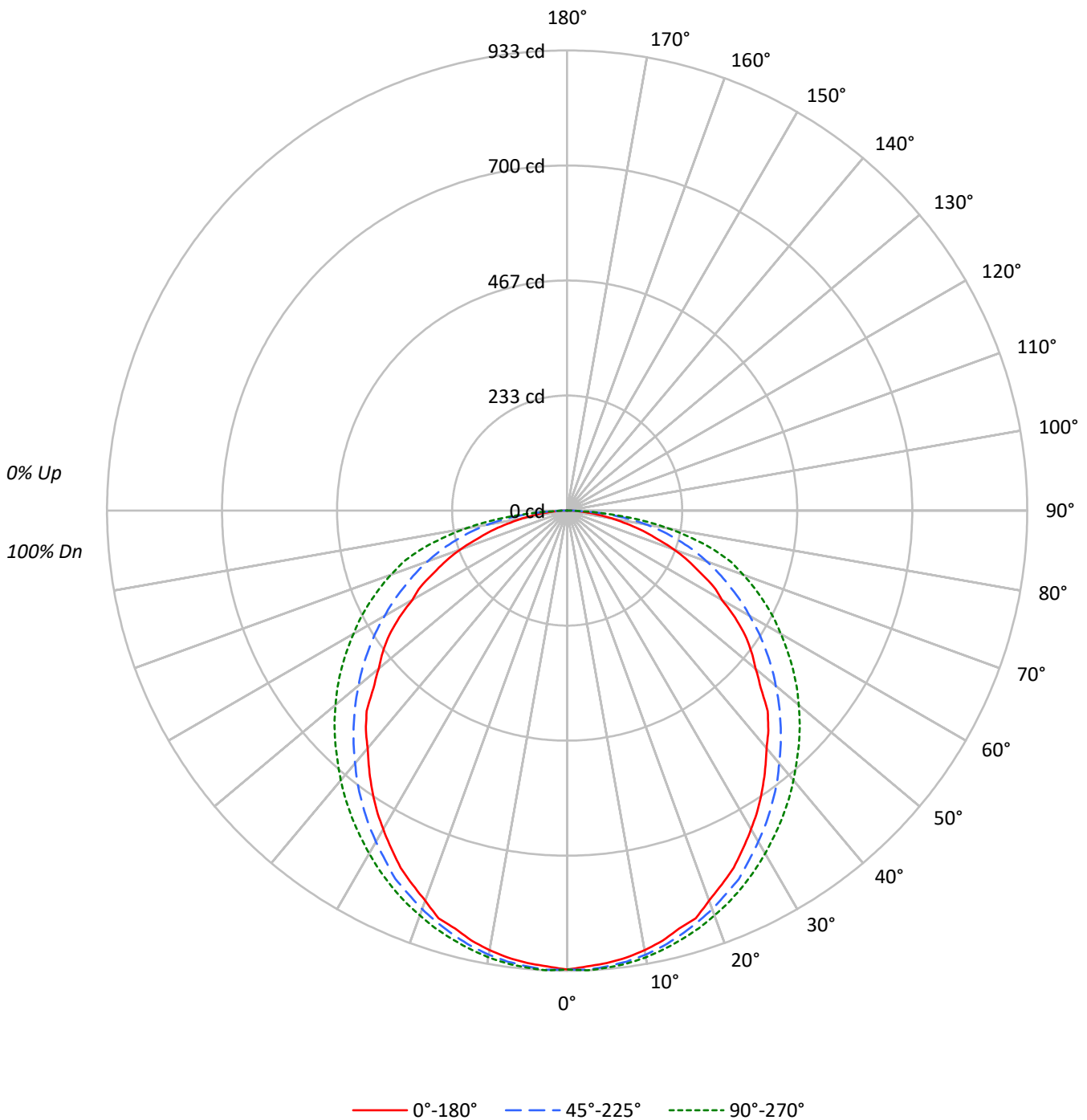
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	90		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	59	56
4	81	69	60	53	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		51	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°	2504	2504	2504
5°	2488	2506	2513
10°	2473	2499	2513
15°	2444	2481	2507
20°	2410	2463	2501
25°	2372	2447	2498
30°	2318	2408	2495
35°	2267	2380	2498
40°	2210	2350	2508
45°	2187	2328	2530
50°	2089	2311	2567
55°	2067	2304	2621
60°	1950	2300	2693
65°	1893	2316	2814
70°	1817	2371	2987
75°	1656	2442	3215
80°	1420	2529	3250
85°	1149	2418	2785



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.0	3.2
10°-20°	251.1	9.1
20°-30°	378.0	13.6
30°-40°	453.6	16.4
40°-50°	474.1	17.1
50°-60°	441.9	15.9
60°-70°	362.4	13.1
70°-80°	244.2	8.8
80°-90°	79.6	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°	717.1	25.9
0°-40°	1170.8	42.2
0°-60°	2086.8	75.3
0°-90°	2773.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2773.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	930	930	930	930	930	
5°	921	924	928	929	930	87
15°	877	883	890	898	900	248
25°	799	804	824	836	841	367
35°	690	699	725	750	760	431
45°	575	579	612	649	665	439
55°	441	449	491	538	559	390
65°	297	311	364	417	442	296
75°	159	176	235	288	309	167
85°	37	53	78	92	90	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	930.4	930.4	930.4	930.4	930.4
2.5°	925.1	927.7	931.7	933.0	933.0
5°	921.1	923.7	927.7	929.0	930.4
7.5°	914.4	917.1	922.4	925.1	926.4
10°	905.1	907.8	914.4	918.4	919.7
12.5°	893.2	895.9	903.8	909.1	910.5
15°	877.3	882.6	890.5	898.5	899.8
17.5°	866.7	865.3	875.9	885.2	887.9
20°	841.4	848.1	860.0	870.6	873.3
22.5°	820.2	825.5	841.4	853.4	858.7
25°	799.0	804.3	824.2	836.1	841.4
27.5°	772.4	780.4	799.0	816.2	822.9
30°	745.9	753.8	775.1	795.0	803.0
32.5°	719.3	728.6	751.2	772.4	781.7
35°	690.1	699.4	724.6	749.9	760.5
37.5°	659.6	671.6	698.1	726.0	737.9
40°	629.1	641.0	668.9	700.8	714.0
42.5°	603.9	609.2	641.0	675.5	688.8
45°	574.7	578.7	611.8	649.0	664.9
47.5°	532.2	546.8	582.6	623.8	639.7
50°	499.0	515.0	552.1	595.9	613.2
52.5°	471.2	481.8	522.9	566.7	586.6
55°	440.6	448.6	491.1	537.5	558.7
57.5°	403.5	418.1	460.5	508.3	529.6
60°	362.3	380.9	427.4	479.1	500.4
62.5°	335.8	346.4	396.8	448.6	472.5
65°	297.3	310.6	363.7	416.7	442.0
67.5°	265.4	278.7	333.1	386.2	411.4
70°	230.9	244.2	301.3	354.4	379.6
72.5°	191.1	209.7	269.4	322.5	349.1
75°	159.3	176.5	234.9	288.0	309.2
77.5°	123.4	146.0	200.4	244.2	260.1
80°	91.6	114.1	163.2	195.1	209.7
82.5°	62.4	84.9	122.1	146.0	154.0
85°	37.2	53.1	78.3	91.6	90.2
87.5°	17.3	22.6	31.9	31.9	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)