

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: P272026

Luminaire Tested: **22CZ2-29HE-S-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: P272026
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-S-UNV-L935-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

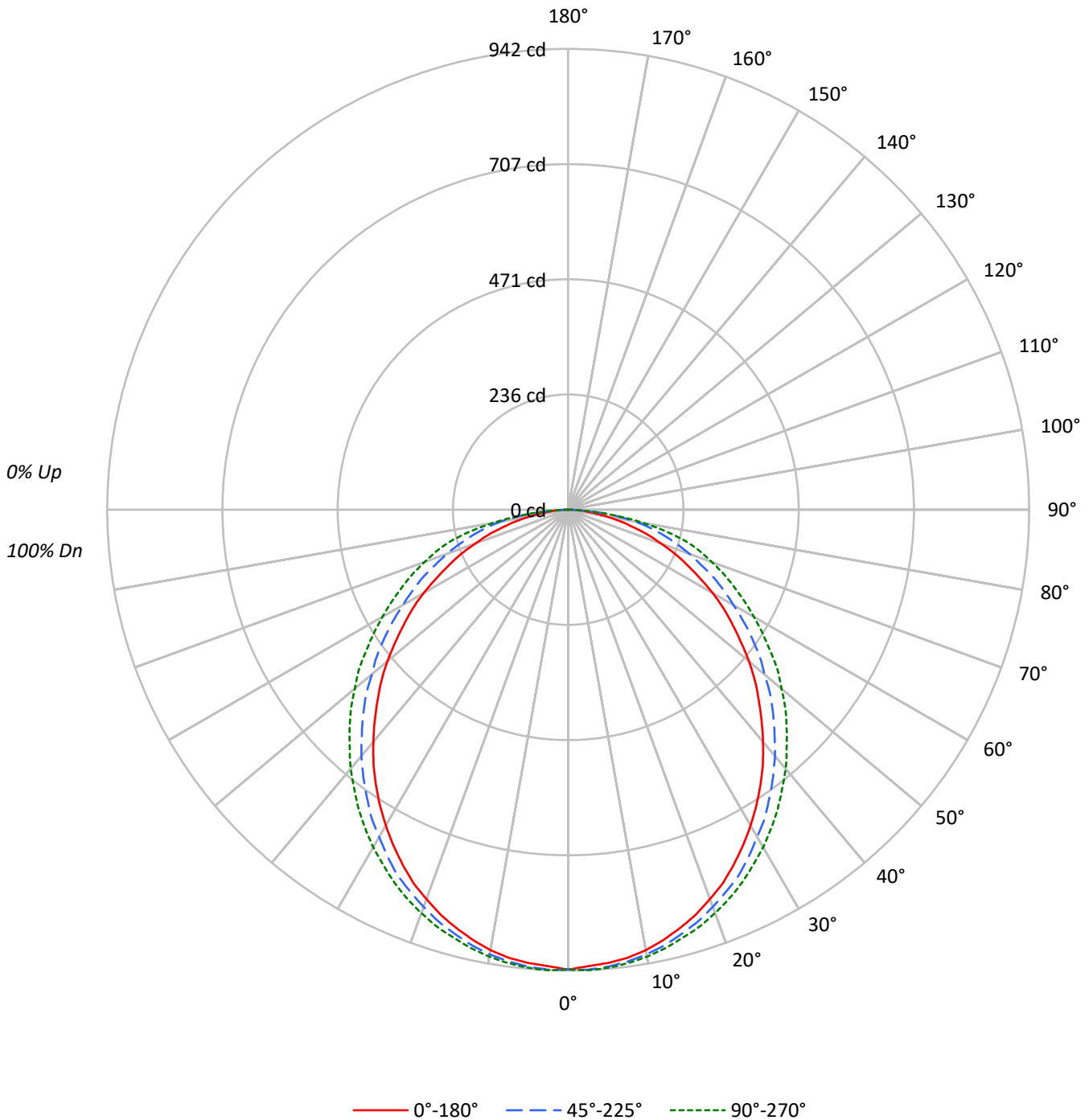
Lumens per Lamp: N/A
Luminaire Lumens: 2623.0 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22.2
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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2529	2529	2529
5°	2512	2532	2539
10°	2498	2522	2535
15°	2465	2499	2523
20°	2425	2474	2513
25°	2377	2449	2496
30°	2316	2399	2476
35°	2251	2356	2452
40°	2175	2309	2429
45°	2096	2254	2403
50°	2019	2193	2382
55°	1924	2153	2365
60°	1837	2101	2358
65°	1714	2089	2385
70°	1579	2070	2456
75°	1425	2099	2583
80°	1232	2162	2428
85°	1019	1812	1812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	3.4
10°-20°	252.9	9.6
20°-30°	378.5	14.4
30°-40°	448.2	17.1
40°-50°	456.8	17.4
50°-60°	409.4	15.6
60°-70°	320.5	12.2
70°-80°	206.7	7.9
80°-90°	61.1	2.3
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°	720.3	27.5
0°-40°	1168.5	44.5
0°-60°	2034.7	77.6
0°-90°	2623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2623.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	930	933	938	939	940	88
15°	885	890	897	904	906	249
25°	800	808	825	836	841	368
35°	685	694	717	739	746	428
45°	551	563	592	623	632	425
55°	410	423	459	491	504	368
65°	269	285	328	360	374	267
75°	137	158	202	236	248	147
85°	33	45	59	59	59	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	939.9	939.9	939.9	939.9	939.9
2.5°	933.8	936.2	941.1	942.4	942.4
5°	930.1	932.6	937.5	938.7	939.9
7.5°	924.0	925.2	931.3	933.8	935.0
10°	914.2	916.6	922.8	926.4	927.7
12.5°	900.7	904.4	911.8	916.6	917.9
15°	884.8	889.7	897.1	904.4	905.6
17.5°	867.7	872.6	882.4	890.9	893.4
20°	846.9	853.0	864.0	873.8	877.5
22.5°	826.1	831.0	844.4	856.7	860.4
25°	800.4	807.7	824.9	835.9	840.8
27.5°	773.5	782.0	799.2	813.8	818.7
30°	745.3	753.9	772.2	790.6	796.7
32.5°	715.9	725.7	747.8	766.1	772.2
35°	685.3	693.9	717.2	739.2	746.5
37.5°	653.5	660.9	687.8	711.0	718.4
40°	619.3	629.0	657.2	684.1	691.5
42.5°	585.0	596.0	624.2	653.5	660.9
45°	550.7	563.0	592.3	622.9	631.5
47.5°	517.7	527.5	560.5	589.9	602.1
50°	482.2	492.0	523.8	556.8	569.1
52.5°	445.5	458.9	493.2	525.0	539.7
55°	410.0	423.4	458.9	490.8	504.2
57.5°	376.9	388.0	424.7	457.7	471.2
60°	341.4	351.2	390.4	425.9	438.1
62.5°	303.5	318.2	358.6	391.6	406.3
65°	269.2	285.2	328.0	359.8	374.5
67.5°	237.4	252.1	293.7	328.0	343.9
70°	200.7	220.3	263.1	297.4	312.1
72.5°	171.3	188.5	232.5	266.8	282.7
75°	137.1	157.9	201.9	236.2	248.4
77.5°	108.9	129.7	171.3	198.3	204.4
80°	79.5	100.4	139.5	153.0	156.7
82.5°	53.8	73.4	100.4	104.0	105.2
85°	33.0	45.3	58.7	58.7	58.7
87.5°	15.9	18.4	20.8	19.6	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)