

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: P475361

Luminaire Tested: **14CZ2-29-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475361
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

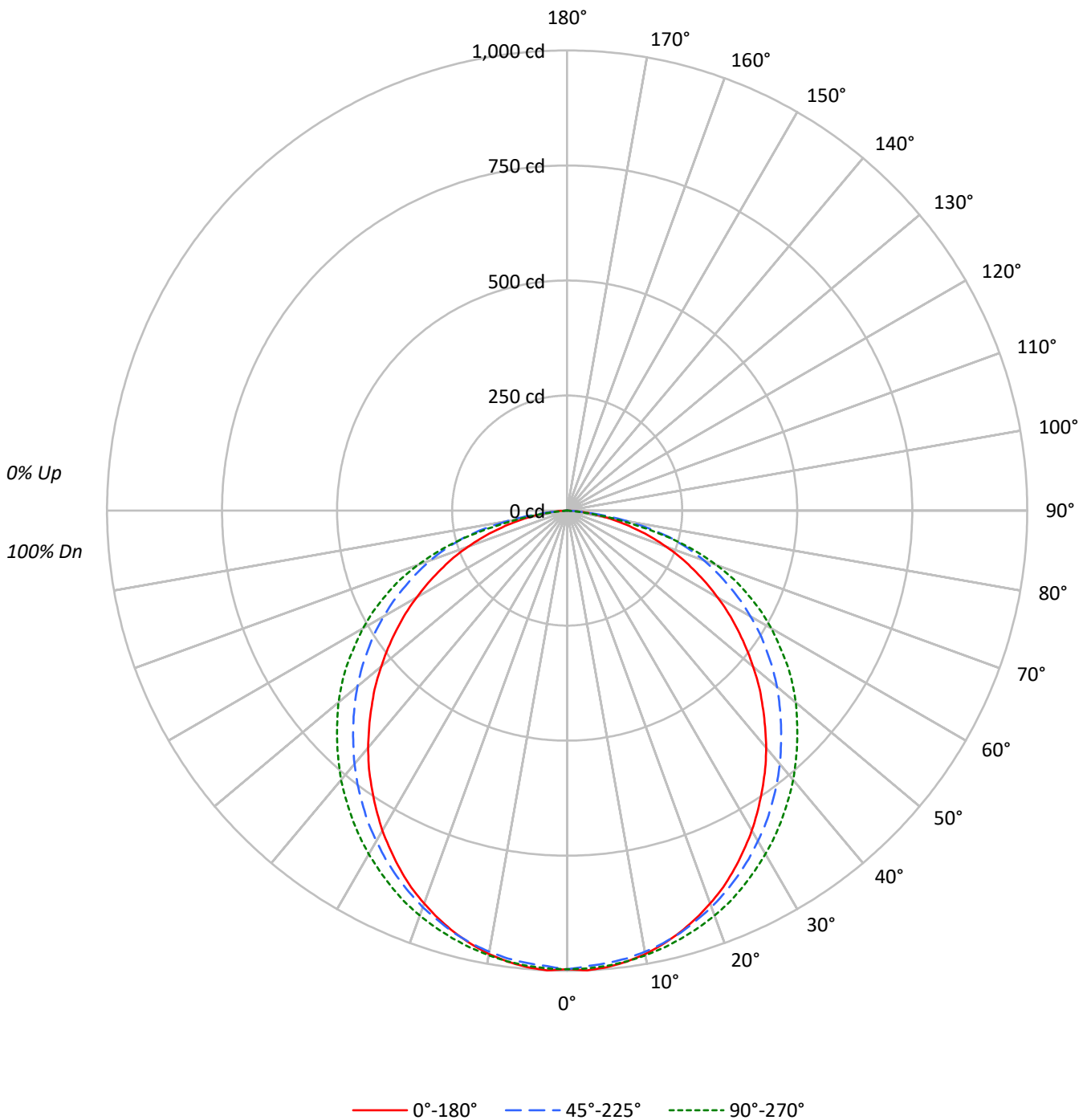
Lumens per Lamp: N/A
Luminaire Lumens: 2873.5 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.4
Input Voltage (V): 120
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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2682	2682	2682
5°	2690	2667	2682
10°	2674	2661	2682
15°	2643	2647	2681
20°	2603	2627	2682
25°	2553	2602	2680
30°	2495	2577	2679
35°	2429	2551	2679
40°	2364	2526	2685
45°	2286	2502	2691
50°	2208	2491	2716
55°	2125	2479	2739
60°	2031	2477	2759
65°	1928	2471	2765
70°	1795	2485	2711
75°	1592	2453	2432
80°	1336	2052	1657
85°	936	803	195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.3	3.3
10°-20°	269.2	9.4
20°-30°	405.6	14.1
30°-40°	486.9	16.9
40°-50°	506.8	17.6
50°-60°	468.4	16.3
60°-70°	375.1	13.1
70°-80°	224.4	7.8
80°-90°	42.8	1.5
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°	769.1	26.8
0°-40°	1255.9	43.7
0°-60°	2231.1	77.6
0°-90°	2873.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2873.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	996	994	987	994	993	95
15°	949	949	950	962	962	267
25°	860	864	876	899	902	396
35°	739	750	776	807	815	463
45°	601	618	658	696	707	464
55°	453	478	528	569	584	405
65°	303	334	388	426	434	300
75°	153	192	236	239	234	164
85°	30	44	26	11	6	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	996.8	996.8	996.8	996.8	996.8
2.5°	1000.2	997.3	991.1	997.3	995.9
5°	995.9	993.5	987.2	994.4	993.0
7.5°	988.7	986.7	981.9	989.6	988.2
10°	978.6	977.1	973.7	982.4	981.4
12.5°	964.6	965.1	963.2	973.7	972.8
15°	948.7	948.7	950.2	962.2	962.2
17.5°	929.9	930.9	933.8	949.7	950.2
20°	908.8	911.2	917.4	933.8	936.7
22.5°	886.1	889.0	897.7	916.9	921.3
25°	859.7	864.5	876.5	898.7	902.5
27.5°	831.7	839.0	853.9	878.0	882.8
30°	802.9	810.6	829.3	855.3	862.1
32.5°	771.6	781.7	804.3	831.7	839.5
35°	739.3	750.4	776.4	807.2	815.4
37.5°	707.1	719.1	748.5	781.7	789.9
40°	672.9	686.9	719.1	753.3	764.4
42.5°	636.8	652.2	687.8	725.4	736.0
45°	600.7	618.5	657.5	696.5	707.1
47.5°	565.6	583.9	626.2	666.7	677.7
50°	527.5	548.7	594.9	634.9	648.8
52.5°	490.5	514.1	562.7	603.1	617.1
55°	452.9	477.5	528.5	569.4	583.9
57.5°	416.4	442.3	496.3	536.7	546.8
60°	377.4	405.8	460.2	501.1	512.6
62.5°	340.8	370.1	425.0	464.5	475.6
65°	302.8	334.0	388.0	426.0	434.2
67.5°	267.1	298.4	352.8	385.6	393.7
70°	228.2	262.8	315.8	343.7	344.6
72.5°	191.1	226.2	277.7	295.5	293.1
75°	153.1	191.6	235.9	239.2	233.9
77.5°	118.9	157.4	187.7	177.1	166.5
80°	86.2	123.7	132.4	116.0	106.9
82.5°	56.8	86.6	79.9	57.3	49.1
85°	30.3	44.3	26.0	10.6	6.3
87.5°	11.6	7.7	2.9	2.4	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)