

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: P475397

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475397
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-S-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

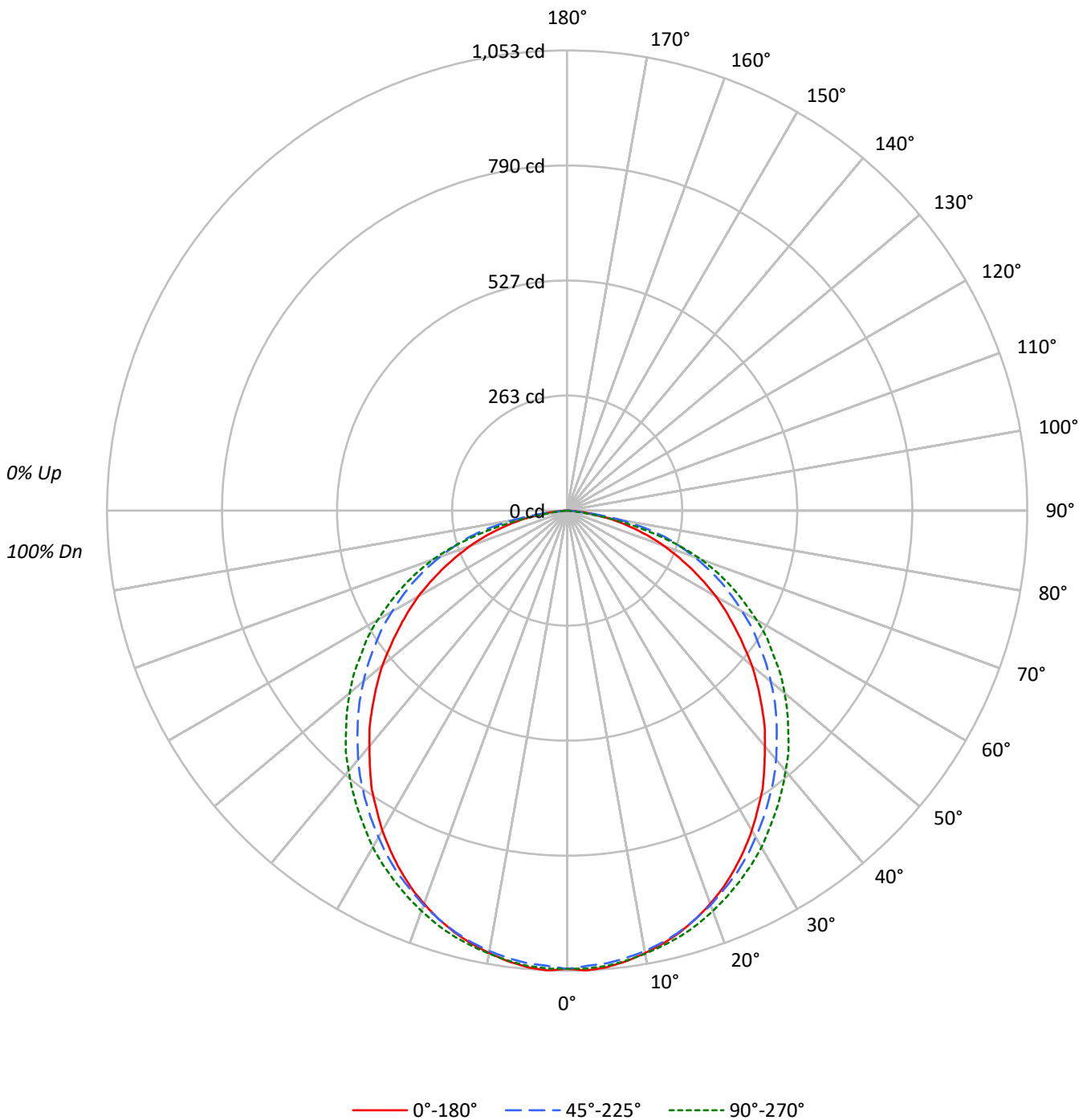
Lumens per Lamp: N/A
Luminaire Lumens: 2931.4 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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	100	96	106	102	98	94	98	94	91		94	91	89		90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75		82	77	74		79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63		72	67	62		70	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54		64	58	53		62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46		58	51	46		56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	40		52	45	40		50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	36		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2822	2822	2822
5°	2833	2809	2825
10°	2809	2797	2813
15°	2782	2778	2807
20°	2742	2750	2792
25°	2689	2720	2777
30°	2627	2682	2764
35°	2560	2647	2743
40°	2473	2613	2732
45°	2393	2578	2724
50°	2312	2547	2719
55°	2205	2515	2702
60°	2117	2489	2695
65°	1989	2476	2654
70°	1854	2434	2561
75°	1639	2389	2159
80°	1323	1940	1278
85°	954	546	136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	3.4
10°-20°	282.4	9.6
20°-30°	423.6	14.5
30°-40°	505.0	17.2
40°-50°	521.5	17.8
50°-60°	475.0	16.2
60°-70°	372.1	12.7
70°-80°	215.3	7.3
80°-90°	37.4	1.3
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°	805.2	27.5
0°-40°	1310.2	44.7
0°-60°	2306.6	78.7
0°-90°	2931.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2931.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1049	1046	1040	1047	1046	99
15°	999	997	997	1008	1008	281
25°	906	909	916	934	935	417
35°	779	786	806	831	835	486
45°	629	645	678	708	716	486
55°	470	493	536	570	576	421
65°	312	340	389	414	417	310
75°	158	192	230	222	208	168
85°	31	41	18	6	4	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.7	1048.7	1048.7	1048.7	1048.7
2.5°	1053.1	1048.7	1042.8	1048.7	1048.7
5°	1048.7	1045.8	1039.9	1047.2	1045.8
7.5°	1039.9	1036.9	1032.5	1039.9	1038.4
10°	1028.1	1026.6	1023.7	1032.5	1029.6
12.5°	1014.8	1013.3	1011.9	1020.7	1019.2
15°	998.6	997.1	997.1	1007.5	1007.5
17.5°	979.5	979.5	979.5	992.7	992.7
20°	957.4	957.4	960.3	975.1	975.1
22.5°	933.8	933.8	938.2	954.4	955.9
25°	905.8	908.8	916.1	933.8	935.3
27.5°	876.4	880.8	891.1	910.2	913.2
30°	845.4	849.9	863.1	885.2	889.6
32.5°	811.6	818.9	835.1	857.2	861.6
35°	779.2	786.5	805.7	830.7	835.1
37.5°	740.9	752.6	776.2	799.8	807.1
40°	704.0	717.3	743.8	771.8	777.7
42.5°	668.7	680.5	709.9	740.9	749.7
45°	628.9	645.1	677.5	708.5	715.8
47.5°	590.6	606.8	643.7	676.1	683.4
50°	552.3	568.5	608.3	640.7	649.5
52.5°	509.6	533.2	573.0	605.4	615.7
55°	469.9	493.4	536.1	570.0	575.9
57.5°	431.6	455.1	502.3	533.2	542.0
60°	393.3	416.8	462.5	493.4	500.8
62.5°	352.0	378.5	425.7	452.2	458.1
65°	312.3	340.2	388.8	413.9	416.8
67.5°	272.5	301.9	349.1	369.7	372.6
70°	235.7	265.1	309.3	328.5	325.5
72.5°	197.4	226.8	269.5	279.8	271.0
75°	157.6	191.5	229.8	222.4	207.7
77.5°	122.2	154.7	179.7	157.6	145.8
80°	85.4	119.3	125.2	97.2	82.5
82.5°	56.0	84.0	67.8	41.2	36.8
85°	30.9	41.2	17.7	5.9	4.4
87.5°	10.3	5.9	2.9	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)