

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: P475505

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475505
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-SQR-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

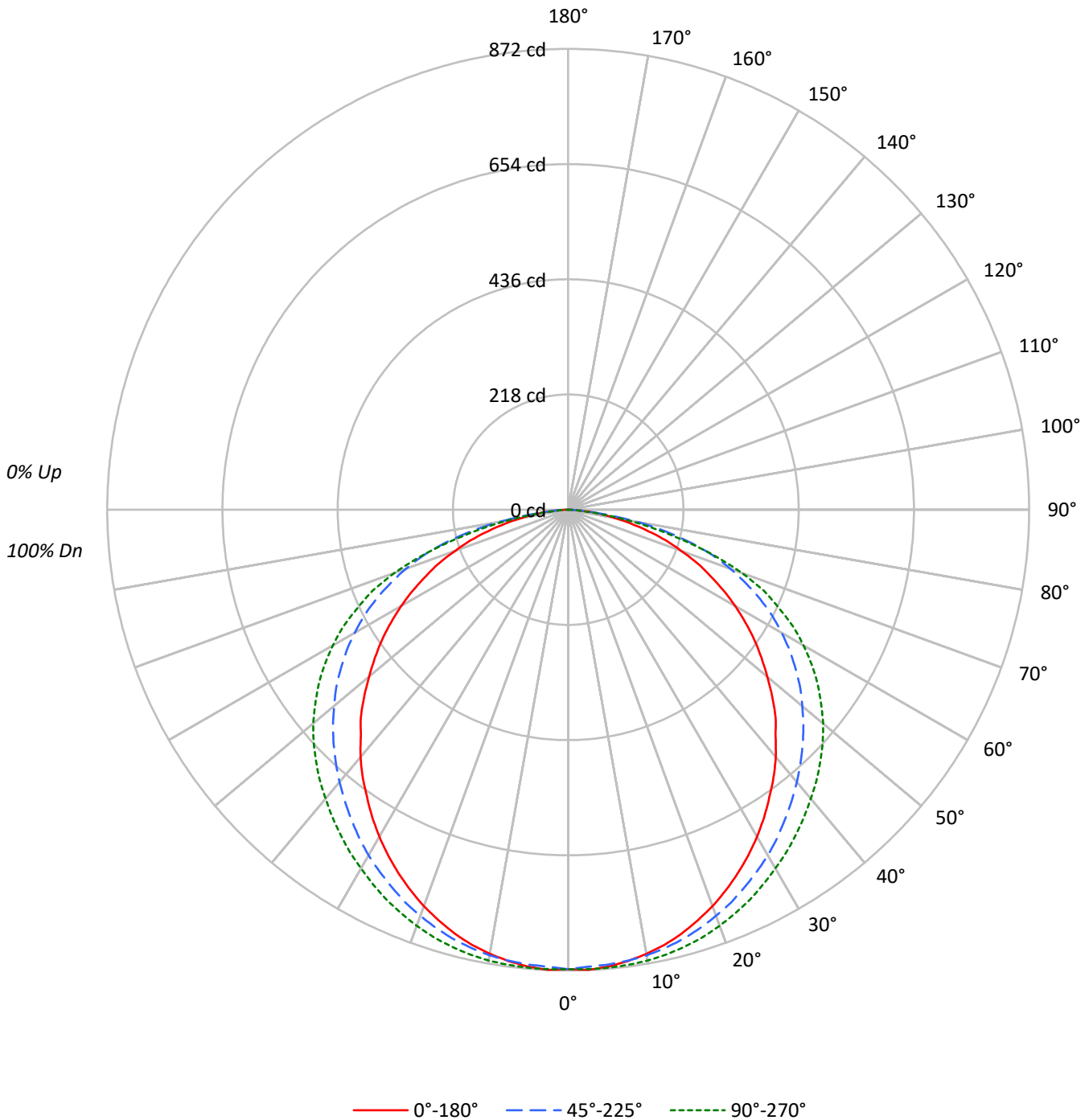
Lumens per Lamp: N/A
Luminaire Lumens: 2729.6 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61	70	65	60	68	63	59	57
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	38	50	43	38	49	43	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2340	2340	2340
5°	2344	2334	2350
10°	2331	2340	2367
15°	2313	2343	2383
20°	2287	2342	2399
25°	2254	2341	2417
30°	2220	2347	2435
35°	2180	2349	2466
40°	2147	2363	2507
45°	2112	2388	2567
50°	2058	2420	2636
55°	2018	2463	2705
60°	1966	2510	2767
65°	1889	2552	2797
70°	1789	2571	2747
75°	1634	2484	2372
80°	1373	2030	1768
85°	1000	1022	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	3.0
10°-20°	237.9	8.7
20°-30°	363.8	13.3
30°-40°	446.5	16.4
40°-50°	480.2	17.6
50°-60°	461.0	16.9
60°-70°	381.9	14.0
70°-80°	228.9	8.4
80°-90°	46.9	1.7
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°	684.3	25.1
0°-40°	1130.8	41.4
0°-60°	2072.0	75.9
0°-90°	2729.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2729.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	869	869	869	869	869	
5°	868	866	864	871	870	82
15°	830	834	841	854	856	234
25°	759	772	788	809	814	350
35°	664	686	715	743	751	416
45°	555	584	627	662	674	427
55°	430	471	525	563	576	384
65°	297	345	401	432	439	294
75°	157	205	239	234	228	166
85°	32	47	33	22	22	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	869.4	869.4	869.4	869.4	869.4
2.5°	871.7	869.4	865.5	871.7	870.1
5°	867.8	866.3	864.0	870.9	870.1
7.5°	861.7	861.7	860.9	869.4	868.6
10°	853.2	854.7	856.3	866.3	866.3
12.5°	843.2	844.7	849.3	860.9	861.7
15°	830.1	833.9	840.9	854.0	855.5
17.5°	814.7	820.8	830.1	845.5	847.8
20°	798.5	805.4	817.7	834.7	837.8
22.5°	779.2	789.2	804.6	822.4	826.2
25°	759.2	771.5	788.4	809.3	813.9
27.5°	737.6	752.2	772.3	793.8	799.2
30°	714.5	731.4	755.3	778.4	783.8
32.5°	689.8	709.8	736.0	761.5	768.4
35°	663.6	685.9	715.2	743.0	750.7
37.5°	638.2	662.1	694.4	724.5	733.0
40°	611.2	636.6	672.8	704.4	713.7
42.5°	580.4	611.2	650.5	684.4	695.2
45°	554.9	584.2	627.4	662.1	674.4
47.5°	523.3	557.2	603.5	640.5	652.8
50°	491.7	530.3	578.0	616.6	629.7
52.5°	460.9	500.2	553.4	591.1	602.7
55°	430.1	470.9	524.9	563.4	576.5
57.5°	397.7	442.4	497.1	535.7	546.4
60°	365.3	410.0	466.3	503.3	514.1
62.5°	331.4	379.2	435.5	469.4	480.2
65°	296.7	345.3	400.8	432.4	439.3
67.5°	264.4	313.7	363.8	393.1	400.0
70°	227.4	279.8	326.8	348.4	349.1
72.5°	193.5	242.0	286.7	292.9	291.3
75°	157.2	205.0	238.9	233.5	228.1
77.5°	121.8	170.3	188.1	172.6	168.8
80°	88.6	132.6	131.0	116.4	114.1
82.5°	60.9	91.7	75.5	61.7	57.0
85°	32.4	47.0	33.1	22.4	21.6
87.5°	12.3	11.6	6.9	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)