

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: P475112

Luminaire Tested: **22CZ2-39-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475112
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39-HRP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

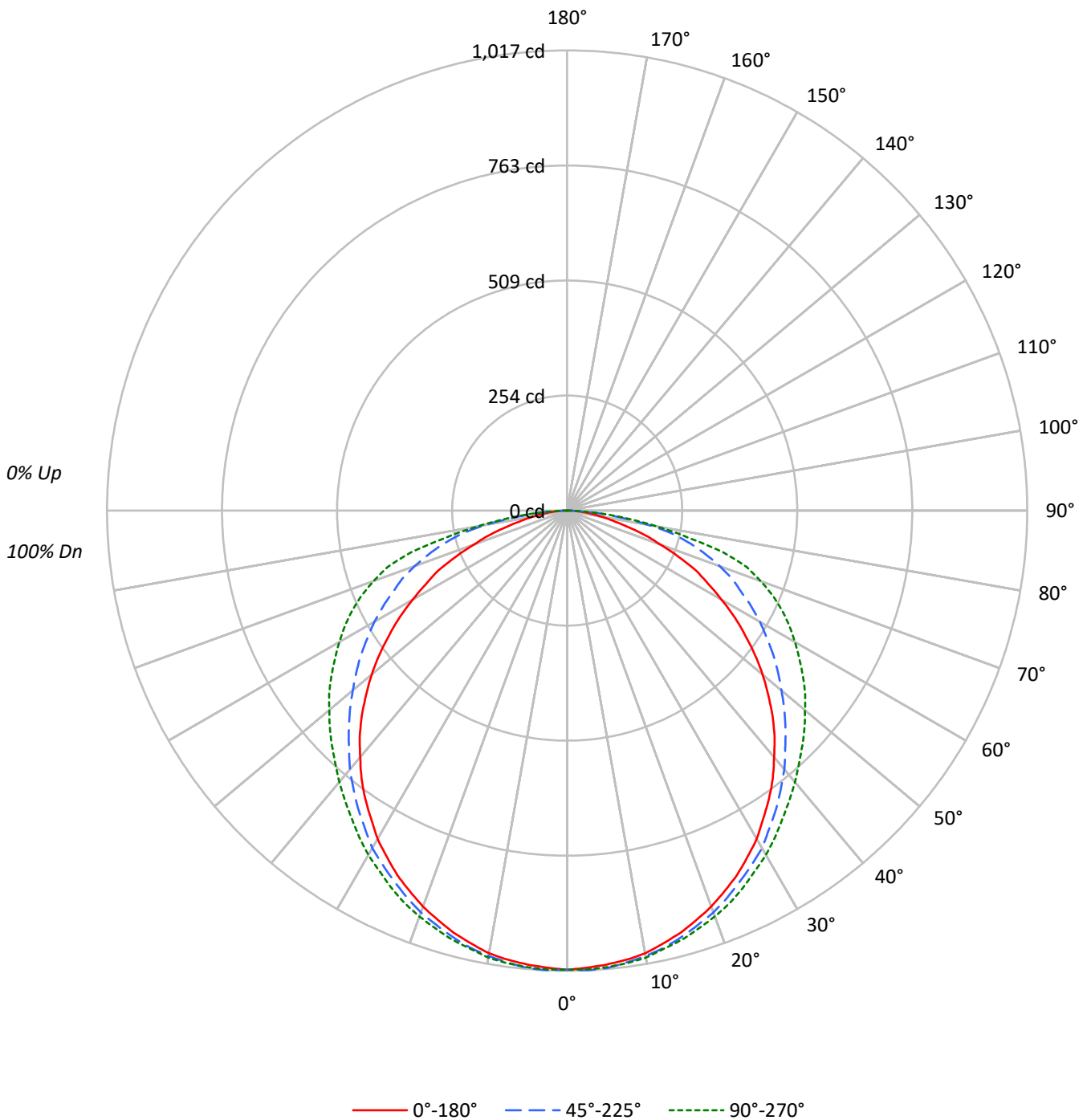
Lumens per Lamp: N/A
Luminaire Lumens: 3082.2 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 29.3
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	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2731	2731	2731
5°	2720	2742	2736
10°	2715	2731	2742
15°	2692	2719	2735
20°	2667	2706	2734
25°	2638	2684	2731
30°	2604	2676	2731
35°	2555	2644	2727
40°	2499	2623	2752
45°	2442	2597	2797
50°	2360	2588	2873
55°	2253	2609	2983
60°	2124	2647	3129
65°	2006	2699	3343
70°	1714	2815	3580
75°	1436	2932	3720
80°	1176	2831	3104
85°	1019	2100	2279



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.2	3.1
10°-20°	275.2	8.9
20°-30°	417.0	13.5
30°-40°	503.5	16.3
40°-50°	529.1	17.2
50°-60°	497.8	16.2
60°-70°	415.1	13.5
70°-80°	275.0	8.9
80°-90°	73.3	2.4
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°	788.4	25.6
0°-40°	1291.9	41.9
0°-60°	2318.8	75.2
0°-90°	3082.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3082.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1015	1015	1015	1015	1015	
5°	1007	1009	1015	1015	1013	96
15°	966	970	976	980	982	272
25°	889	894	904	916	920	409
35°	778	786	805	822	830	486
45°	642	651	682	717	735	494
55°	480	502	556	612	636	430
65°	315	342	424	494	525	306
75°	138	192	282	340	358	150
85°	33	50	68	74	74	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1014.9	1014.9	1014.9	1014.9	1014.9
2.5°	1011.1	1013.0	1016.9	1016.9	1014.9
5°	1007.1	1009.0	1014.9	1014.9	1013.0
7.5°	1001.3	1003.4	1007.1	1011.1	1009.0
10°	993.6	995.4	999.4	1003.4	1003.4
12.5°	980.0	981.9	989.6	991.7	991.7
15°	966.2	970.2	976.0	980.0	981.9
17.5°	948.9	952.7	960.4	968.3	968.3
20°	931.4	935.2	945.0	952.7	954.6
22.5°	909.9	915.8	925.6	935.2	939.1
25°	888.6	894.5	904.1	915.8	919.7
27.5°	863.2	869.0	882.8	896.4	898.2
30°	838.0	843.8	861.3	873.0	878.8
32.5°	806.9	814.6	832.1	849.6	855.5
35°	777.7	785.6	805.0	822.5	830.2
37.5°	746.6	754.3	775.8	797.3	806.9
40°	711.5	721.3	746.6	769.9	783.5
42.5°	678.6	688.4	713.6	744.7	758.3
45°	641.7	651.3	682.5	717.4	734.9
47.5°	602.7	614.3	651.3	694.2	711.5
50°	563.8	577.4	618.3	666.9	686.3
52.5°	523.0	540.5	587.2	639.8	662.9
55°	480.2	501.7	556.1	612.5	635.8
57.5°	439.3	458.9	523.0	583.3	608.5
60°	394.7	419.9	491.9	554.1	581.4
62.5°	351.9	379.2	458.9	525.0	554.1
65°	315.0	342.1	423.9	493.8	525.0
67.5°	266.4	303.3	394.7	460.8	491.9
70°	217.8	268.3	357.8	425.8	455.0
72.5°	180.9	229.5	320.8	388.8	416.2
75°	138.1	192.5	282.0	340.2	357.8
77.5°	103.0	159.4	241.1	270.3	272.2
80°	75.9	122.5	182.7	192.5	200.3
82.5°	52.6	85.5	118.7	130.2	134.1
85°	33.0	50.5	68.0	73.8	73.8
87.5°	17.5	19.4	23.4	23.4	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)