

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: P475147

Luminaire Tested: **22CZ2-39HE-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475147
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-HRP-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3237.7 lumens
Efficiency: N/A
Efficacy: 113.6 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

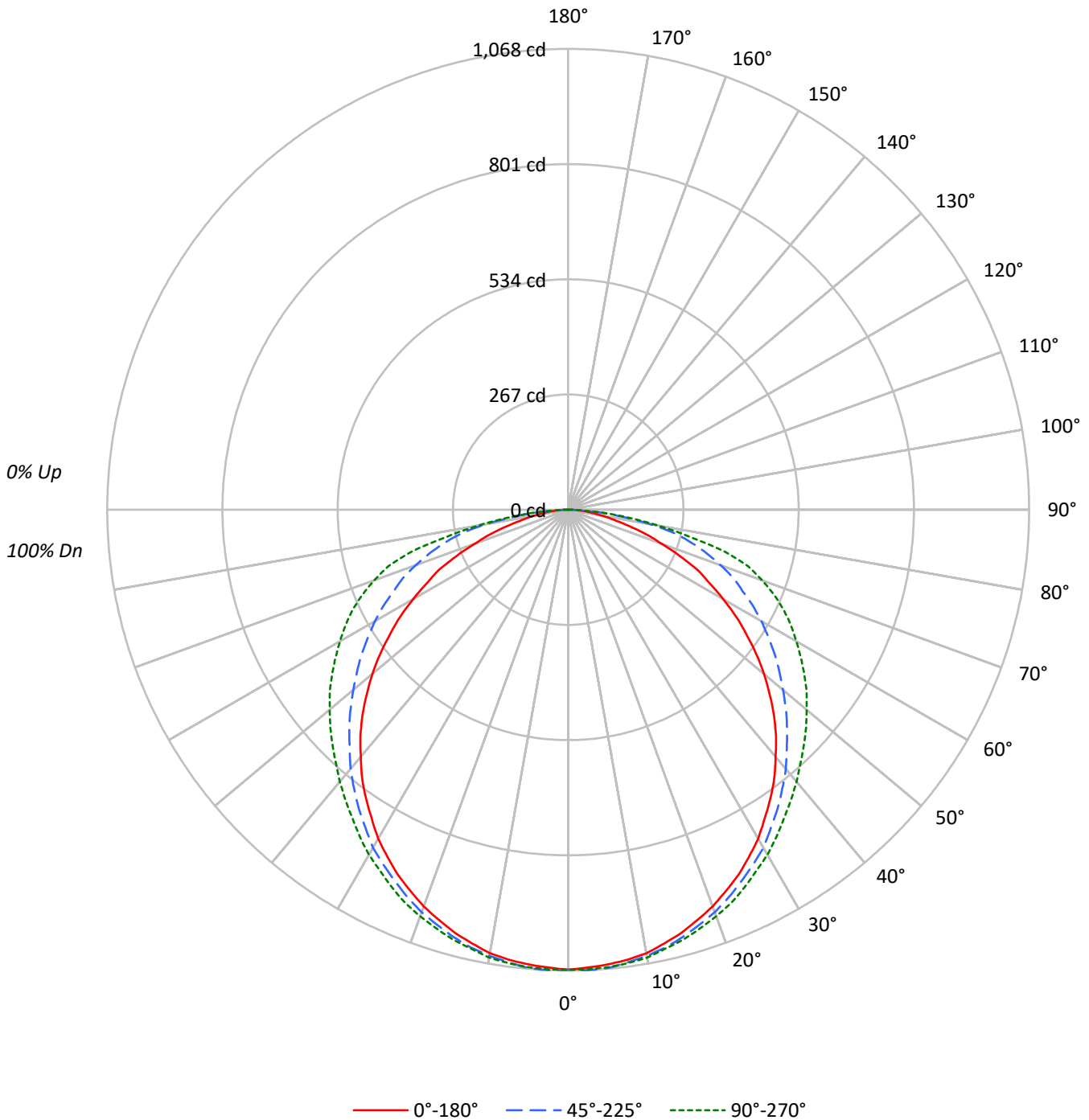
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82					82			
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36					36			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2869	2869	2869
5°	2858	2880	2874
10°	2852	2869	2880
15°	2828	2856	2873
20°	2802	2842	2871
25°	2772	2820	2869
30°	2735	2811	2869
35°	2684	2778	2865
40°	2626	2755	2891
45°	2565	2729	2938
50°	2480	2719	3018
55°	2366	2741	3134
60°	2231	2781	3287
65°	2107	2835	3512
70°	1800	2957	3760
75°	1509	3080	3907
80°	1237	2975	3261
85°	1068	2205	2396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	3.1
10°-20°	289.0	8.9
20°-30°	438.0	13.5
30°-40°	528.9	16.3
40°-50°	555.8	17.2
50°-60°	522.9	16.2
60°-70°	436.0	13.5
70°-80°	288.9	8.9
80°-90°	77.0	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°	828.1	25.6
0°-40°	1357.1	41.9
0°-60°	2435.8	75.2
0°-90°	3237.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3237.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1058	1060	1066	1066	1064	101
15°	1015	1019	1025	1030	1031	286
25°	934	940	950	962	966	430
35°	817	825	846	864	872	511
45°	674	684	717	754	772	519
55°	504	527	584	643	668	451
65°	331	359	445	519	552	322
75°	145	202	296	357	376	157
85°	35	53	71	78	78	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.1	1066.1	1066.1	1066.1	1066.1
2.5°	1062.1	1064.1	1068.2	1068.2	1066.1
5°	1057.9	1059.9	1066.1	1066.1	1064.1
7.5°	1051.8	1054.0	1057.9	1062.1	1059.9
10°	1043.7	1045.7	1049.8	1054.0	1054.0
12.5°	1029.5	1031.4	1039.5	1041.7	1041.7
15°	1015.0	1019.2	1025.3	1029.5	1031.4
17.5°	996.8	1000.8	1008.9	1017.2	1017.2
20°	978.4	982.4	992.6	1000.8	1002.7
22.5°	955.8	962.0	972.3	982.4	986.5
25°	933.5	939.6	949.7	962.0	966.1
27.5°	906.8	912.9	927.3	941.6	943.6
30°	880.2	886.4	904.8	917.0	923.2
32.5°	847.6	855.7	874.1	892.5	898.6
35°	816.9	825.2	845.6	864.0	872.1
37.5°	784.3	792.4	814.9	837.5	847.6
40°	747.5	757.7	784.3	808.8	823.0
42.5°	712.8	723.1	749.6	782.3	796.5
45°	674.0	684.1	717.0	753.6	772.0
47.5°	633.1	645.3	684.1	729.2	747.5
50°	592.3	606.5	649.5	700.5	720.9
52.5°	549.4	567.8	616.8	672.1	696.4
55°	504.4	527.0	584.2	643.4	667.9
57.5°	461.5	482.1	549.4	612.7	639.2
60°	414.6	441.1	516.7	582.0	610.7
62.5°	369.7	398.4	482.1	551.5	582.0
65°	330.9	359.4	445.3	518.7	551.5
67.5°	279.8	318.6	414.6	484.1	516.7
70°	228.8	281.8	375.8	447.2	477.9
72.5°	190.0	241.0	337.0	408.5	437.2
75°	145.1	202.2	296.2	357.4	375.8
77.5°	108.2	167.4	253.3	284.0	286.0
80°	79.8	128.6	192.0	202.2	210.4
82.5°	55.2	89.8	124.7	136.7	140.9
85°	34.6	53.0	71.4	77.6	77.6
87.5°	18.4	20.4	24.5	24.5	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)