

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: P475152

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475152
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-HRP-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY 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: 3175.4 lumens
Efficiency: N/A
Efficacy: 118.9 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

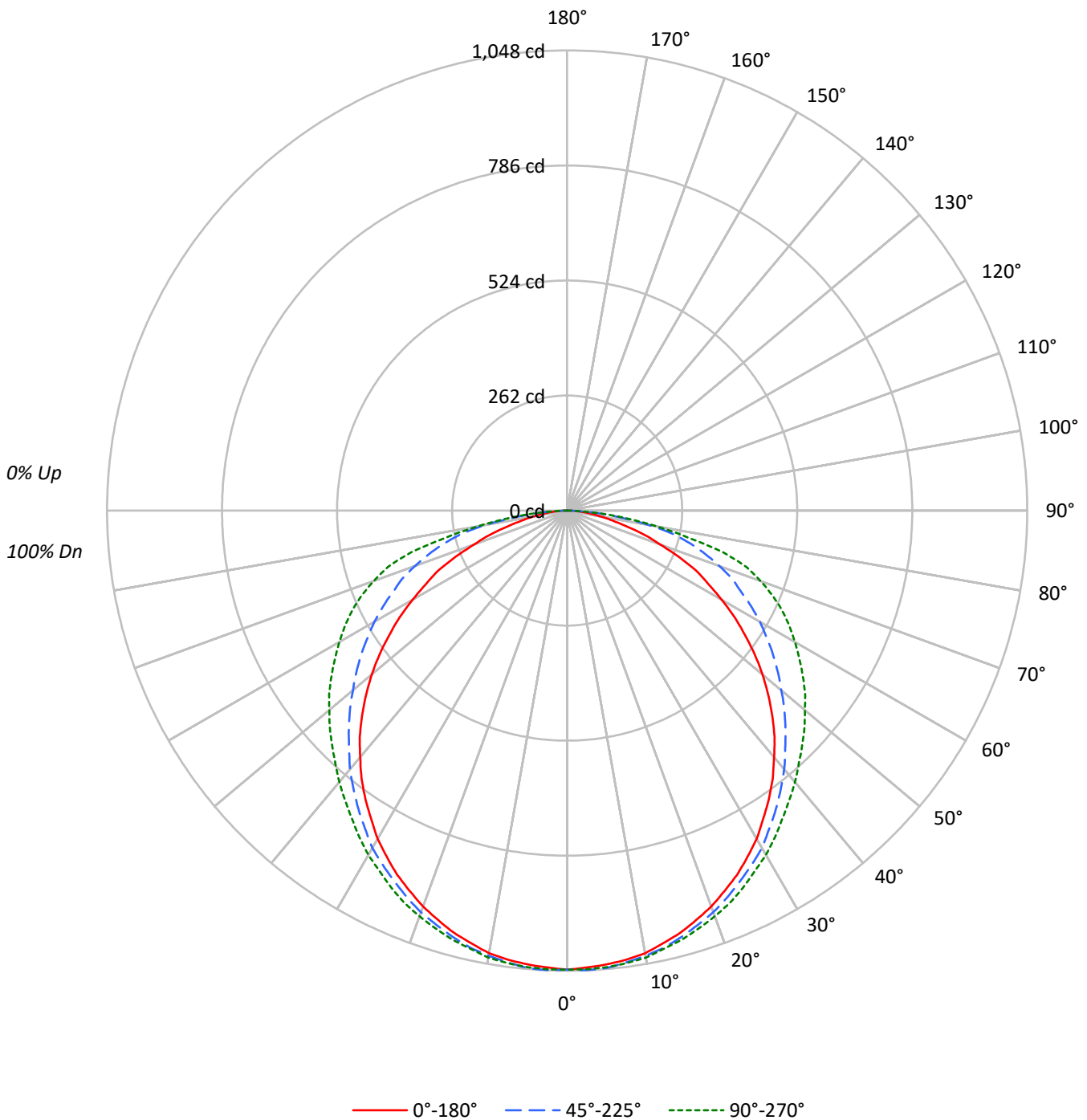
Input Watts (W): 26.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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
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°	2813	2813	2813
5°	2803	2824	2819
10°	2797	2813	2825
15°	2773	2801	2818
20°	2748	2788	2816
25°	2718	2765	2813
30°	2683	2757	2813
35°	2632	2724	2810
40°	2575	2702	2836
45°	2516	2676	2881
50°	2432	2667	2960
55°	2321	2688	3073
60°	2188	2728	3223
65°	2066	2781	3444
70°	1766	2900	3688
75°	1480	3020	3832
80°	1212	2918	3197
85°	1050	2164	2350



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	3.1
10°-20°	283.5	8.9
20°-30°	429.6	13.5
30°-40°	518.7	16.3
40°-50°	545.1	17.2
50°-60°	512.9	16.2
60°-70°	427.6	13.5
70°-80°	283.4	8.9
80°-90°	75.5	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°	812.2	25.6
0°-40°	1330.9	41.9
0°-60°	2388.9	75.2
0°-90°	3175.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3175.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1038	1040	1046	1046	1044	99
15°	996	1000	1006	1010	1012	281
25°	916	922	931	943	948	421
35°	801	809	829	847	855	501
45°	661	671	703	739	757	509
55°	495	517	573	631	655	443
65°	324	352	437	509	541	316
75°	142	198	290	350	369	154
85°	34	52	70	76	76	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1045.5	1045.5	1045.5	1045.5	1045.5
2.5°	1041.6	1043.6	1047.7	1047.7	1045.5
5°	1037.6	1039.5	1045.5	1045.5	1043.6
7.5°	1031.6	1033.7	1037.6	1041.6	1039.5
10°	1023.6	1025.5	1029.6	1033.7	1033.7
12.5°	1009.6	1011.6	1019.5	1021.7	1021.7
15°	995.5	999.5	1005.5	1009.6	1011.6
17.5°	977.6	981.5	989.4	997.6	997.6
20°	959.5	963.4	973.5	981.5	983.4
22.5°	937.4	943.4	953.5	963.4	967.5
25°	915.5	921.5	931.4	943.4	947.5
27.5°	889.3	895.3	909.5	923.4	925.4
30°	863.3	869.3	887.3	899.4	905.4
32.5°	831.3	839.2	857.3	875.3	881.3
35°	801.2	809.3	829.3	847.4	855.3
37.5°	769.2	777.1	799.2	821.4	831.3
40°	733.1	743.1	769.2	793.2	807.2
42.5°	699.1	709.2	735.2	767.2	781.2
45°	661.0	670.9	703.2	739.1	757.1
47.5°	620.9	632.9	670.9	715.2	733.1
50°	580.9	594.9	637.0	687.1	707.0
52.5°	538.8	556.8	605.0	659.1	683.0
55°	494.7	516.8	572.9	631.0	655.0
57.5°	452.6	472.8	538.8	600.9	626.9
60°	406.6	432.6	506.8	570.8	598.9
62.5°	362.5	390.7	472.8	540.9	570.8
65°	324.5	352.5	436.7	508.7	540.9
67.5°	274.4	312.5	406.6	474.7	506.8
70°	224.4	276.4	368.6	438.6	468.7
72.5°	186.3	236.4	330.5	400.6	428.7
75°	142.3	198.4	290.5	350.5	368.6
77.5°	106.2	164.2	248.4	278.5	280.5
80°	78.2	126.2	188.3	198.4	206.3
82.5°	54.1	88.1	122.3	134.1	138.2
85°	34.0	52.0	70.1	76.1	76.1
87.5°	18.0	20.0	24.1	24.1	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)