

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: P474803

Luminaire Tested: **22CZ2-29VHE-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474803
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

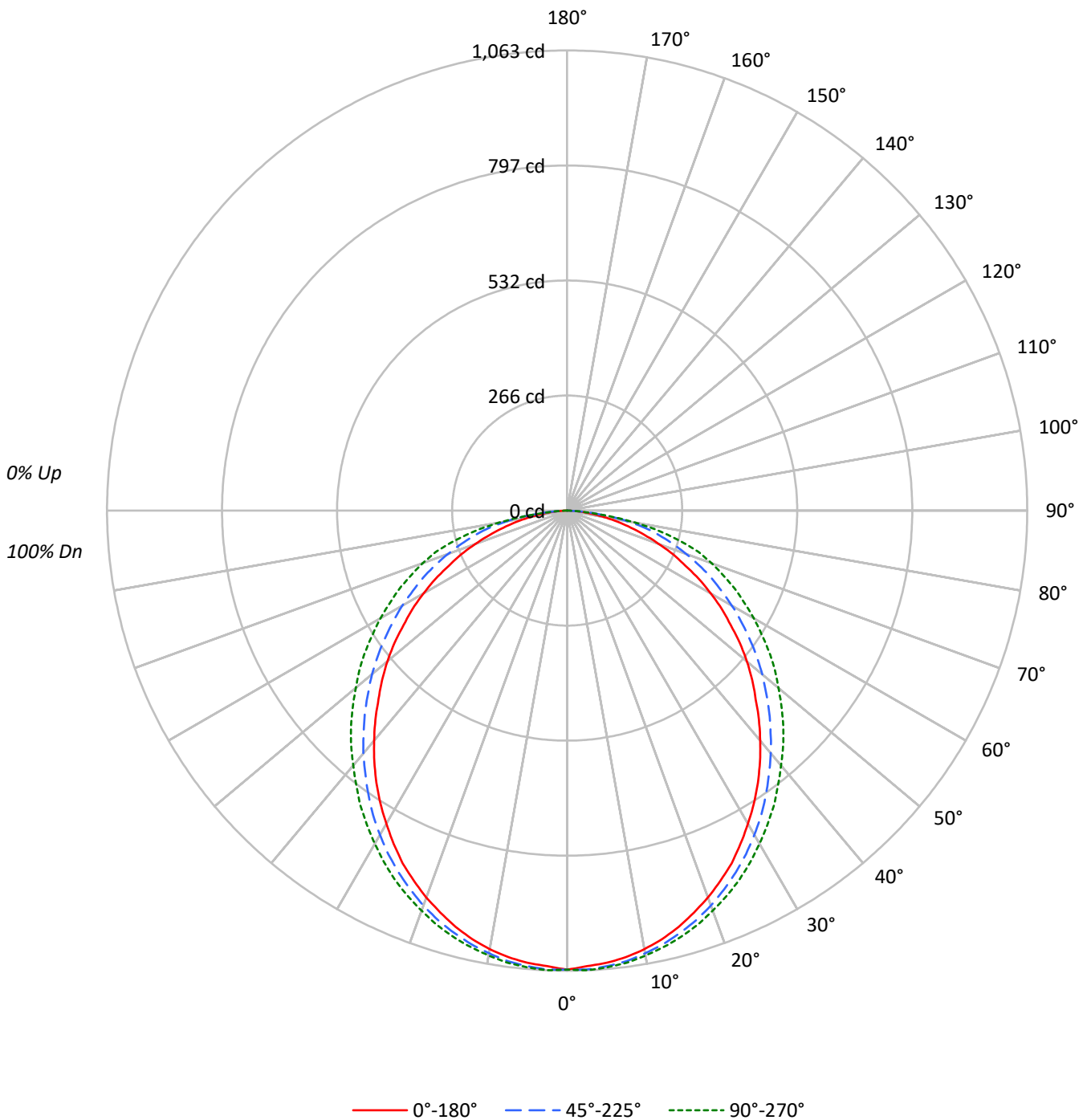
Lumens per Lamp: N/A
Luminaire Lumens: 2923.9 lumens
Efficiency: N/A
Efficacy: 146.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 19.9
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	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	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°	2854	2854	2854
5°	2833	2854	2861
10°	2811	2838	2852
15°	2773	2813	2839
20°	2723	2780	2817
25°	2670	2737	2794
30°	2596	2688	2761
35°	2523	2631	2734
40°	2438	2572	2700
45°	2345	2514	2688
50°	2269	2463	2667
55°	2163	2409	2673
60°	2065	2368	2680
65°	1920	2337	2723
70°	1774	2305	2791
75°	1587	2294	2807
80°	1331	2174	2452
85°	1031	1488	1392



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	3.4
10°-20°	284.4	9.7
20°-30°	424.0	14.5
30°-40°	500.6	17.1
40°-50°	510.2	17.4
50°-60°	460.1	15.7
60°-70°	361.6	12.4
70°-80°	226.4	7.7
80°-90°	56.5	1.9
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°	808.6	27.7
0°-40°	1309.2	44.8
0°-60°	2279.4	78.0
0°-90°	2923.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2923.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1049	1051	1057	1059	1059	99
15°	996	1000	1010	1017	1019	280
25°	899	906	922	936	941	413
35°	768	778	801	823	832	480
45°	616	630	661	693	706	477
55°	461	475	514	553	570	414
65°	302	320	367	408	428	301
75°	153	176	221	260	270	162
85°	33	43	48	48	45	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1060.4	1060.4	1060.4	1060.4	1060.4
2.5°	1053.6	1056.0	1061.0	1062.8	1062.8
5°	1048.6	1051.1	1056.6	1059.1	1059.1
7.5°	1040.6	1043.0	1049.8	1052.9	1053.6
10°	1028.8	1031.9	1038.7	1043.7	1043.7
12.5°	1014.0	1017.1	1025.7	1031.9	1032.5
15°	995.5	999.8	1009.7	1017.1	1019.0
17.5°	973.8	980.6	991.8	1001.0	1002.9
20°	951.0	957.8	970.8	981.3	983.7
22.5°	925.6	931.8	947.3	960.2	963.3
25°	899.1	905.9	921.9	936.1	941.1
27.5°	867.6	875.6	894.7	910.8	915.8
30°	835.4	845.3	865.1	883.0	888.6
32.5°	802.7	811.9	834.2	853.3	860.8
35°	768.1	778.0	800.8	823.1	832.3
37.5°	731.6	741.5	766.2	791.6	800.2
40°	693.9	705.7	732.2	759.4	768.7
42.5°	655.6	668.0	695.8	726.1	738.4
45°	616.1	629.7	660.6	692.7	706.3
47.5°	580.2	591.3	623.5	658.7	671.7
50°	541.9	552.4	588.3	623.5	637.1
52.5°	503.0	512.9	551.2	588.3	604.9
55°	461.0	475.2	513.5	553.0	569.7
57.5°	423.9	436.9	476.4	516.6	532.6
60°	383.7	397.3	440.0	480.7	498.0
62.5°	343.6	358.4	401.6	445.5	461.6
65°	301.5	320.1	367.0	407.8	427.6
67.5°	265.7	283.6	330.0	372.6	389.9
70°	225.5	246.6	292.9	336.1	354.7
72.5°	187.8	208.9	256.4	299.7	318.2
75°	152.6	175.5	220.6	260.1	270.0
77.5°	118.6	140.3	185.4	208.2	218.7
80°	85.9	106.9	140.3	155.7	158.2
82.5°	58.1	76.0	95.2	99.5	97.0
85°	33.4	42.6	48.2	48.2	45.1
87.5°	13.6	13.6	11.7	7.4	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)