

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: P473841

Luminaire Tested: **24CZ2-85VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473841
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

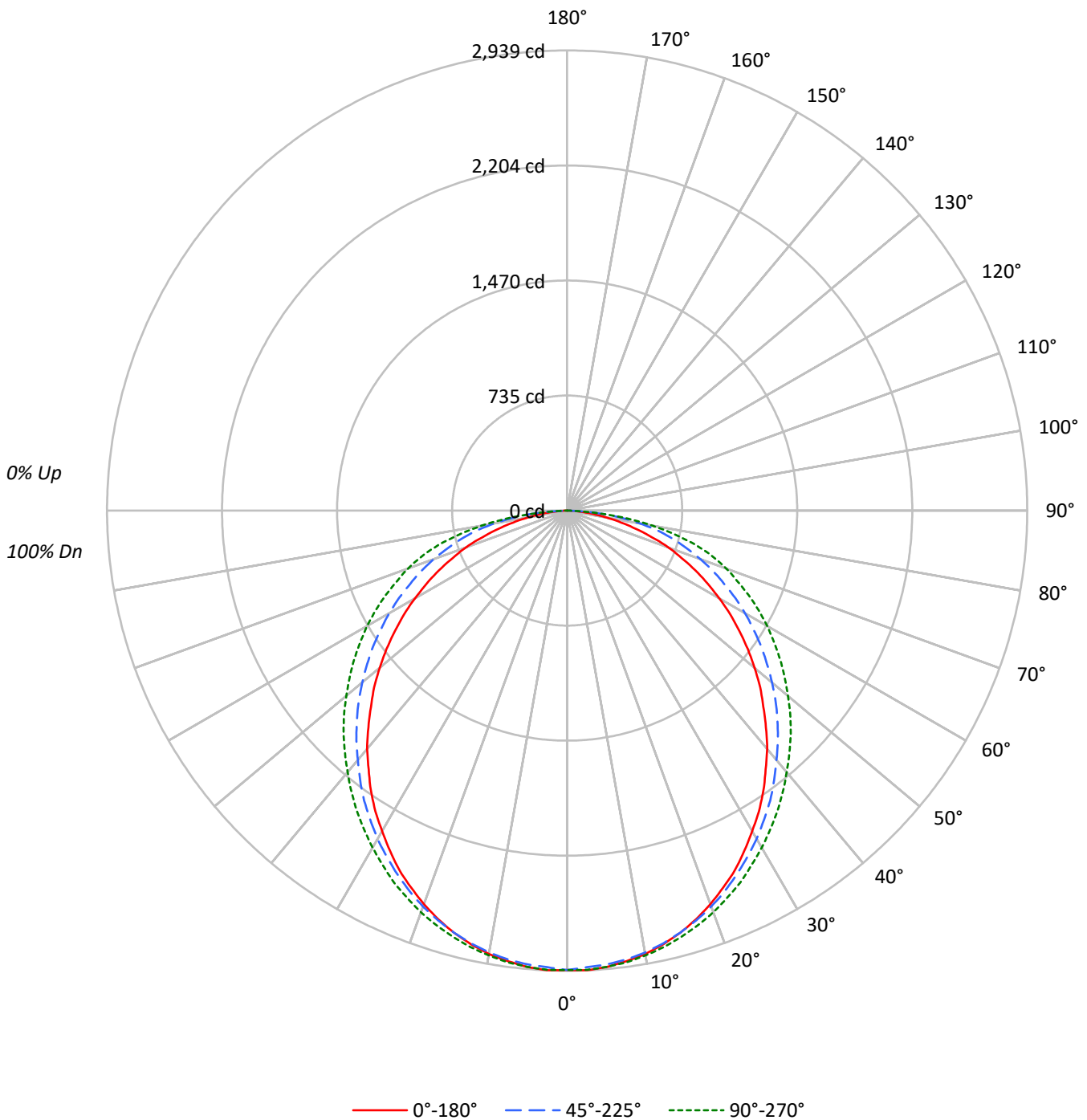
Lumens per Lamp: N/A
Luminaire Lumens: 8491.8 lumens
Efficiency: N/A
Efficacy: 142.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 59.7
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	
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	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3948	3948	3948
5°	3950	3930	3950
10°	3929	3916	3942
15°	3889	3887	3925
20°	3830	3854	3909
25°	3764	3807	3890
30°	3672	3762	3862
35°	3590	3714	3846
40°	3492	3653	3831
45°	3373	3616	3843
50°	3271	3575	3854
55°	3151	3550	3897
60°	3020	3533	3969
65°	2878	3520	4071
70°	2709	3557	4258
75°	2382	3630	4429
80°	1987	3656	4273
85°	1419	3134	3177



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.4	3.3
10°-20°	790.1	9.3
20°-30°	1185.4	14.0
30°-40°	1415.2	16.7
40°-50°	1465.9	17.3
50°-60°	1349.5	15.9
60°-70°	1088.6	12.8
70°-80°	711.3	8.4
80°-90°	208.5	2.5
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°	2252.9	26.5
0°-40°	3668.1	43.2
0°-60°	6483.5	76.3
0°-90°	8491.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8491.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2934	2934	2934	2934	2934	
5°	2925	2922	2910	2926	2925	278
15°	2792	2792	2790	2818	2818	787
25°	2535	2541	2564	2611	2620	1166
35°	2185	2205	2261	2323	2342	1365
45°	1772	1816	1900	1985	2019	1370
55°	1343	1401	1513	1624	1661	1202
65°	904	966	1106	1232	1279	894
75°	458	545	698	819	852	489
85°	92	159	203	215	206	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2934.5	2934.5	2934.5	2934.5	2934.5
2.5°	2938.6	2934.5	2919.4	2937.2	2935.8
5°	2924.9	2922.1	2909.8	2926.2	2924.9
7.5°	2902.9	2901.5	2891.9	2909.8	2909.8
10°	2875.5	2872.7	2865.9	2886.5	2885.1
12.5°	2837.1	2835.7	2831.6	2856.3	2854.9
15°	2791.8	2791.8	2790.4	2817.9	2817.9
17.5°	2736.9	2738.3	2743.8	2775.3	2776.7
20°	2675.2	2680.7	2691.6	2727.3	2730.1
22.5°	2605.2	2616.2	2631.3	2671.1	2675.2
25°	2535.3	2540.7	2564.1	2610.7	2620.3
27.5°	2450.2	2463.9	2494.1	2542.1	2551.7
30°	2363.8	2383.0	2421.4	2470.8	2485.9
32.5°	2278.7	2295.2	2340.4	2396.7	2414.5
35°	2185.4	2204.6	2260.9	2322.6	2341.8
37.5°	2082.5	2112.7	2171.7	2243.0	2263.6
40°	1987.9	2015.3	2079.8	2159.4	2181.3
42.5°	1879.5	1913.8	1992.0	2072.9	2100.4
45°	1772.5	1816.4	1900.1	1985.1	2019.4
47.5°	1672.3	1708.0	1806.8	1902.8	1933.0
50°	1562.6	1603.7	1708.0	1809.5	1841.1
52.5°	1454.2	1503.6	1609.2	1716.2	1750.5
55°	1343.1	1400.7	1513.2	1624.3	1661.4
57.5°	1236.1	1293.7	1410.3	1528.3	1566.7
60°	1122.2	1183.9	1312.9	1426.8	1474.8
62.5°	1012.5	1074.2	1210.0	1333.5	1378.7
65°	904.1	965.8	1105.7	1232.0	1278.6
67.5°	791.6	858.8	1008.3	1130.4	1175.7
70°	688.7	753.2	904.1	1034.4	1082.4
72.5°	570.7	647.5	801.2	930.1	975.4
75°	458.2	544.6	698.3	819.0	851.9
77.5°	353.9	440.4	594.0	684.6	705.2
80°	256.5	344.3	471.9	535.0	551.5
82.5°	166.0	256.5	341.6	384.1	389.6
85°	91.9	159.1	203.0	215.4	205.8
87.5°	32.9	60.4	59.0	48.0	38.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)