

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: P473791

Luminaire Tested: **24CZ2-85VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473791
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

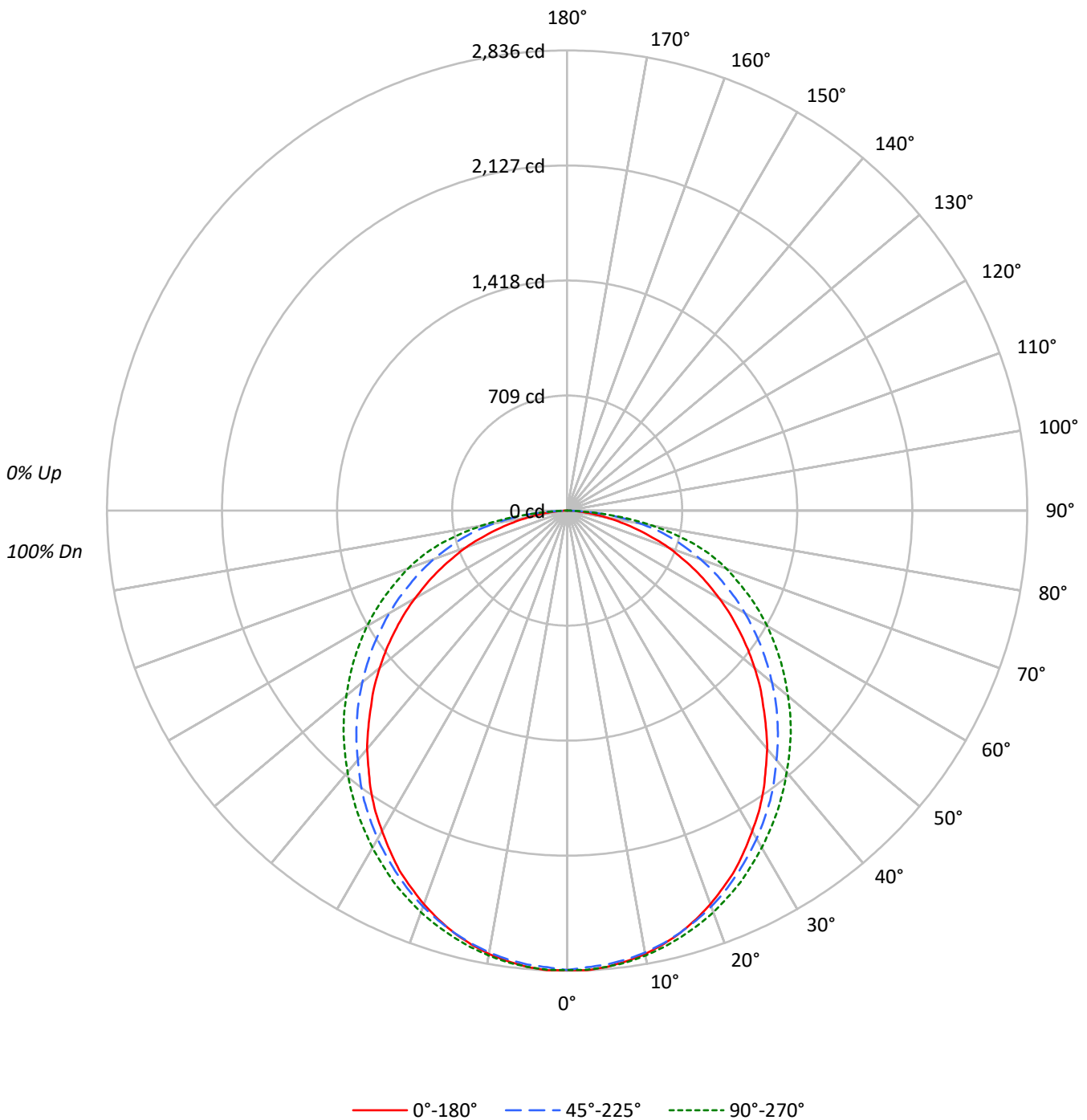
Lumens per Lamp: N/A
Luminaire Lumens: 8194.6 lumens
Efficiency: N/A
Efficacy: 137.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3810	3810	3810
5°	3812	3792	3812
10°	3791	3778	3804
15°	3753	3751	3788
20°	3696	3719	3772
25°	3632	3673	3754
30°	3544	3630	3727
35°	3464	3584	3712
40°	3369	3525	3697
45°	3255	3489	3708
50°	3156	3450	3719
55°	3040	3425	3761
60°	2914	3409	3830
65°	2777	3397	3928
70°	2615	3432	4109
75°	2299	3503	4274
80°	1918	3529	4124
85°	1369	3024	3066



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.7	3.3
10°-20°	762.5	9.3
20°-30°	1143.9	14.0
30°-40°	1365.7	16.7
40°-50°	1414.6	17.3
50°-60°	1302.3	15.9
60°-70°	1050.5	12.8
70°-80°	686.4	8.4
80°-90°	201.2	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°	2174.0	26.5
0°-40°	3539.7	43.2
0°-60°	6256.6	76.3
0°-90°	8194.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8194.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2832	2832	2832	2832	2832	
5°	2822	2820	2808	2824	2822	268
15°	2694	2694	2693	2719	2719	759
25°	2446	2452	2474	2519	2529	1125
35°	2109	2128	2182	2241	2260	1317
45°	1710	1753	1834	1916	1949	1322
55°	1296	1352	1460	1568	1603	1160
65°	872	932	1067	1189	1234	863
75°	442	526	674	790	822	472
85°	89	154	196	208	199	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2831.8	2831.8	2831.8	2831.8	2831.8
2.5°	2835.7	2831.8	2817.2	2834.4	2833.1
5°	2822.5	2819.9	2807.9	2823.8	2822.5
7.5°	2801.3	2800.0	2790.7	2807.9	2807.9
10°	2774.8	2772.2	2765.6	2785.4	2784.1
12.5°	2737.8	2736.4	2732.5	2756.3	2755.0
15°	2694.1	2694.1	2692.8	2719.2	2719.2
17.5°	2641.1	2642.5	2647.7	2678.2	2679.5
20°	2581.6	2586.8	2597.4	2631.9	2634.5
22.5°	2514.0	2524.6	2539.2	2577.6	2581.6
25°	2446.5	2451.8	2474.3	2519.3	2528.6
27.5°	2364.4	2377.7	2406.8	2453.1	2462.4
30°	2281.0	2299.6	2336.6	2384.3	2398.9
32.5°	2199.0	2214.8	2258.5	2312.8	2330.0
35°	2108.9	2127.5	2181.7	2241.3	2259.9
37.5°	2009.6	2038.8	2095.7	2164.5	2184.4
40°	1918.3	1944.8	2007.0	2083.8	2105.0
42.5°	1813.7	1846.8	1922.3	2000.4	2026.9
45°	1710.4	1752.8	1833.6	1915.6	1948.7
47.5°	1613.8	1648.2	1743.5	1836.2	1865.3
50°	1507.9	1547.6	1648.2	1746.2	1776.6
52.5°	1403.3	1451.0	1552.9	1656.2	1689.3
55°	1296.1	1351.7	1460.2	1567.5	1603.2
57.5°	1192.8	1248.4	1360.9	1474.8	1511.9
60°	1082.9	1142.5	1266.9	1376.8	1423.2
62.5°	977.0	1036.6	1167.7	1286.8	1330.5
65°	872.4	932.0	1067.0	1188.8	1233.9
67.5°	763.9	828.7	973.0	1090.9	1134.6
70°	664.6	726.8	872.4	998.2	1044.5
72.5°	550.7	624.9	773.1	897.6	941.3
75°	442.2	525.6	673.9	790.4	822.1
77.5°	341.6	425.0	573.2	660.6	680.5
80°	247.6	332.3	455.4	516.3	532.2
82.5°	160.2	247.6	329.6	370.7	376.0
85°	88.7	153.6	195.9	207.8	198.6
87.5°	31.8	58.3	56.9	46.3	37.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)