

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: P474450

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474450  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-130VHE-HRP-UNV-L835-CD1-U  
Description: 2'X4' 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: 10542.8 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

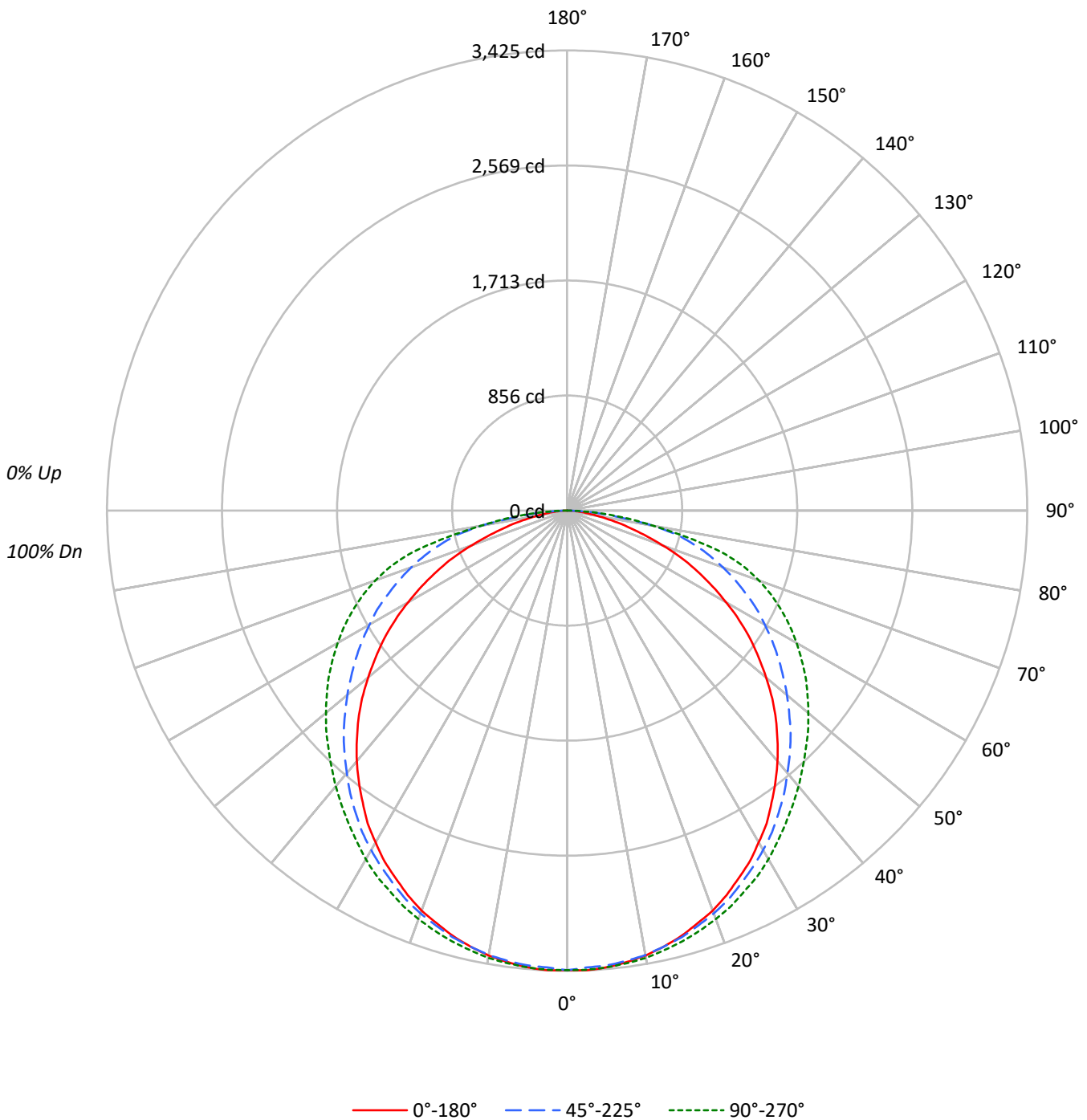
Input Watts (W): 92.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4602	4602	4602
5°	4608	4590	4608
10°	4595	4589	4619
15°	4568	4580	4623
20°	4538	4569	4632
25°	4482	4548	4639
30°	4430	4532	4656
35°	4357	4509	4662
40°	4279	4481	4705
45°	4182	4476	4779
50°	4047	4472	4906
55°	3903	4503	5084
60°	3682	4573	5309
65°	3401	4680	5607
70°	2969	4844	5974
75°	2409	5094	6172
80°	1780	4995	4995
85°	1363	3679	4154



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	324.0	3.1
10°-20°	930.5	8.8
20°-30°	1416.6	13.4
30°-40°	1720.1	16.3
40°-50°	1817.3	17.2
50°-60°	1714.8	16.3
60°-70°	1425.8	13.5
70°-80°	938.0	8.9
80°-90°	255.7	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°	2671.2	25.3
0°-40°	4391.3	41.7
0°-60°	7923.3	75.2
0°-90°	10542.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10542.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3421	3421	3421	3421	3421	
5°	3412	3412	3398	3412	3412	324
15°	3279	3284	3288	3319	3319	925
25°	3019	3036	3063	3116	3125	1393
35°	2653	2684	2745	2816	2838	1661
45°	2198	2242	2352	2467	2511	1693
55°	1664	1734	1920	2101	2167	1482
65°	1068	1192	1470	1686	1761	1056
75°	463	675	980	1161	1187	499
85°	88	194	238	265	269	108
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3420.6	3420.6	3420.6	3420.6	3420.6
2.5°	3425.1	3420.6	3402.9	3420.6	3420.6
5°	3412.0	3412.0	3398.4	3412.0	3412.0
7.5°	3389.8	3389.8	3380.7	3398.4	3398.4
10°	3363.1	3363.1	3359.0	3380.7	3380.7
12.5°	3323.7	3327.7	3323.7	3349.9	3349.9
15°	3279.3	3283.8	3288.3	3319.1	3319.1
17.5°	3222.2	3230.8	3239.9	3274.7	3279.3
20°	3169.2	3173.3	3190.9	3230.8	3235.3
22.5°	3098.5	3111.7	3133.9	3173.3	3186.9
25°	3018.8	3036.5	3063.2	3116.2	3124.8
27.5°	2944.1	2957.2	2992.5	3050.1	3067.7
30°	2851.2	2873.4	2917.3	2974.9	2997.1
32.5°	2762.9	2785.1	2838.1	2899.7	2917.3
35°	2652.8	2683.6	2745.2	2815.9	2838.1
37.5°	2546.8	2577.6	2652.8	2732.1	2758.8
40°	2436.2	2471.6	2551.3	2643.7	2679.0
42.5°	2317.1	2365.6	2453.9	2555.4	2595.2
45°	2198.0	2242.4	2352.4	2467.0	2511.4
47.5°	2070.2	2123.2	2242.4	2379.2	2432.2
50°	1933.4	1999.5	2136.4	2286.3	2343.8
52.5°	1796.6	1871.3	2025.8	2193.4	2255.5
55°	1663.9	1734.5	1919.8	2101.0	2167.2
57.5°	1518.5	1606.8	1809.7	2003.6	2070.2
60°	1368.1	1465.5	1699.2	1902.2	1972.8
62.5°	1218.1	1328.7	1593.2	1796.6	1871.3
65°	1068.2	1191.8	1470.0	1686.1	1761.3
67.5°	922.3	1059.1	1354.9	1571.5	1646.2
70°	754.7	926.8	1231.3	1443.3	1518.5
72.5°	600.2	799.1	1112.1	1311.0	1377.1
75°	463.4	675.4	979.8	1160.6	1187.3
77.5°	339.8	551.8	843.0	904.6	909.2
80°	229.7	441.2	644.6	635.6	644.6
82.5°	149.9	331.1	405.9	454.8	458.9
85°	88.3	194.3	238.3	265.0	269.1
87.5°	43.9	66.1	83.8	88.3	96.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)