

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: P474050

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474050  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-130VHE-S-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

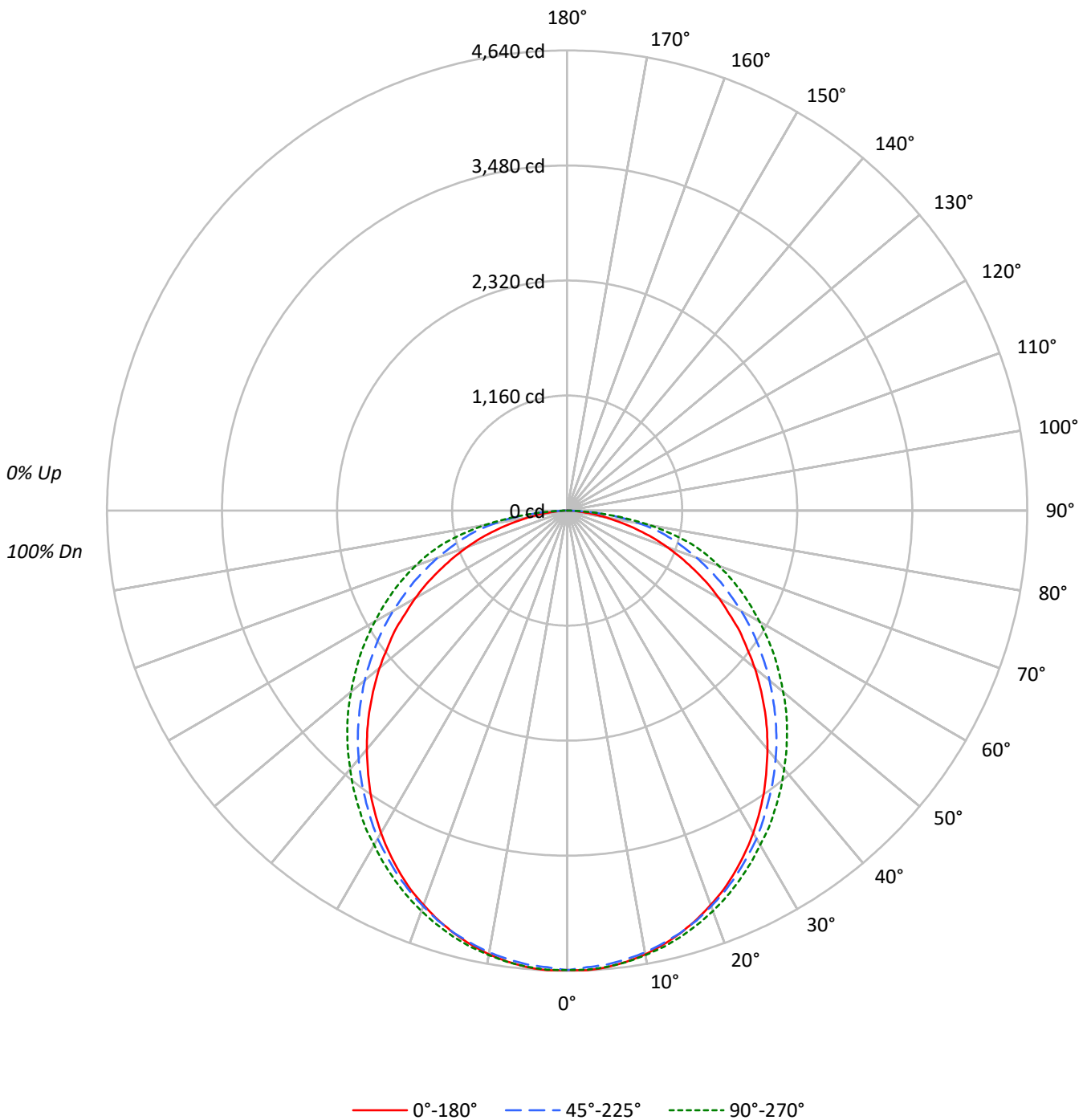
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13274.4 lumens  
Efficiency: N/A  
Efficacy: 144.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	6234	6234	6234
5°	6243	6205	6237
10°	6208	6181	6217
15°	6144	6141	6193
20°	6060	6078	6153
25°	5959	6011	6105
30°	5833	5935	6047
35°	5687	5831	6013
40°	5519	5745	5978
45°	5352	5655	5966
50°	5171	5577	5951
55°	4987	5509	5984
60°	4758	5457	6026
65°	4505	5436	6171
70°	4203	5464	6390
75°	3740	5622	6733
80°	3058	5744	6572
85°	2154	5016	5116



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	438.0	3.3
10°-20°	1247.6	9.4
20°-30°	1870.1	14.1
30°-40°	2227.4	16.8
40°-50°	2296.6	17.3
50°-60°	2095.7	15.8
60°-70°	1675.8	12.6
70°-80°	1094.6	8.2
80°-90°	328.7	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°	3555.7	26.8
0°-40°	5783.1	43.6
0°-60°	10175.4	76.7
0°-90°	13274.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13274.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4633	4633	4633	4633	4633	
5°	4622	4614	4594	4622	4618	439
15°	4411	4413	4409	4446	4446	1243
25°	4014	4021	4049	4108	4112	1848
35°	3462	3486	3550	3639	3661	2163
45°	2813	2863	2972	3096	3135	2169
55°	2126	2187	2348	2503	2551	1893
65°	1415	1511	1707	1875	1938	1403
75°	720	840	1082	1256	1295	765
85°	140	251	325	331	331	177
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4633.4	4633.4	4633.4	4633.4	4633.4
2.5°	4639.9	4633.4	4609.4	4637.7	4633.4
5°	4622.4	4613.7	4594.1	4622.4	4618.1
7.5°	4587.6	4583.2	4563.6	4596.3	4591.9
10°	4544.0	4539.6	4524.3	4557.0	4550.5
12.5°	4482.9	4480.7	4469.8	4509.1	4504.7
15°	4411.0	4413.1	4408.8	4445.8	4445.8
17.5°	4328.1	4325.9	4334.6	4380.4	4376.1
20°	4232.2	4234.3	4245.2	4297.6	4297.6
22.5°	4131.9	4129.7	4153.7	4206.0	4210.4
25°	4014.1	4020.7	4049.0	4107.9	4112.2
27.5°	3887.7	3898.6	3933.4	4001.0	4007.6
30°	3754.7	3767.7	3820.1	3883.3	3892.0
32.5°	3608.6	3636.9	3684.9	3765.6	3787.4
35°	3462.5	3486.5	3549.7	3639.1	3660.9
37.5°	3301.1	3340.4	3412.3	3510.4	3538.8
40°	3142.0	3181.2	3270.6	3373.1	3403.6
42.5°	2980.6	3022.0	3124.5	3240.1	3272.8
45°	2812.7	2862.9	2971.9	3096.2	3135.4
47.5°	2640.5	2699.3	2817.1	2952.3	2995.9
50°	2470.4	2529.3	2664.4	2804.0	2843.2
52.5°	2287.2	2361.4	2505.3	2655.7	2695.0
55°	2125.9	2186.9	2348.3	2503.1	2551.1
57.5°	1936.2	2019.1	2191.3	2348.3	2394.1
60°	1768.3	1844.6	2027.8	2186.9	2239.3
62.5°	1598.2	1676.7	1859.9	2040.9	2088.8
65°	1415.1	1511.0	1707.3	1875.1	1938.4
67.5°	1240.6	1340.9	1541.5	1720.3	1785.7
70°	1068.4	1170.9	1388.9	1572.1	1624.4
72.5°	898.3	1005.2	1231.9	1410.7	1471.8
75°	719.5	839.5	1081.5	1255.9	1295.2
77.5°	551.6	684.6	928.9	1046.6	1074.9
80°	394.7	540.7	741.3	826.4	848.2
82.5°	259.5	401.2	553.8	599.6	593.1
85°	139.5	250.7	324.9	331.4	331.4
87.5°	54.5	100.3	102.5	78.5	74.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)