

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: P474100

Luminaire Tested: **24CZ2-130VHE-S-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474100
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13526.6 lumens
Efficiency: N/A
Efficacy: 146.7 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

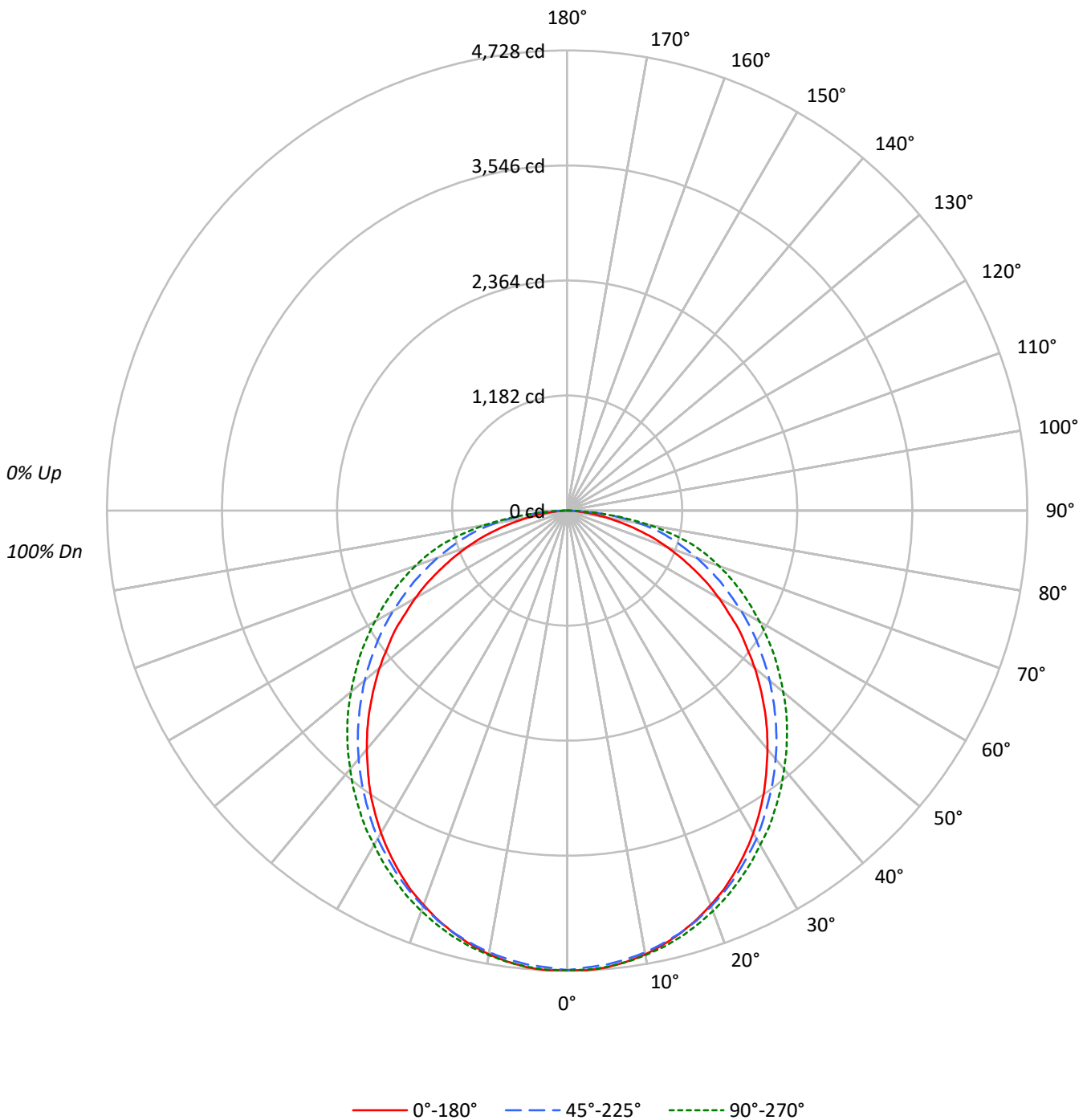
Input Watts (W): 92.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6353	6353	6353
5°	6362	6323	6356
10°	6326	6299	6335
15°	6261	6258	6310
20°	6175	6194	6270
25°	6073	6125	6221
30°	5944	6048	6162
35°	5795	5941	6127
40°	5624	5854	6092
45°	5454	5762	6079
50°	5269	5683	6065
55°	5082	5613	6098
60°	4849	5560	6140
65°	4591	5539	6288
70°	4283	5568	6512
75°	3812	5729	6861
80°	3116	5853	6697
85°	2195	5111	5213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	446.4	3.3
10°-20°	1271.3	9.4
20°-30°	1905.7	14.1
30°-40°	2269.7	16.8
40°-50°	2340.2	17.3
50°-60°	2135.5	15.8
60°-70°	1707.6	12.6
70°-80°	1115.4	8.2
80°-90°	334.9	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°	3623.3	26.8
0°-40°	5893.0	43.6
0°-60°	10368.7	76.7
0°-90°	13526.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13526.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4721	4721	4721	4721	4721	
5°	4710	4701	4681	4710	4706	447
15°	4495	4497	4492	4530	4530	1267
25°	4090	4097	4126	4186	4190	1883
35°	3528	3553	3617	3708	3730	2204
45°	2866	2917	3028	3155	3195	2210
55°	2166	2228	2393	2551	2600	1929
65°	1442	1540	1740	1911	1975	1430
75°	733	855	1102	1280	1320	779
85°	142	256	331	338	338	180
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4721.4	4721.4	4721.4	4721.4	4721.4
2.5°	4728.1	4721.4	4696.9	4725.8	4721.4
5°	4710.3	4701.4	4681.4	4710.3	4705.8
7.5°	4674.7	4670.3	4650.3	4683.6	4679.2
10°	4630.3	4625.8	4610.3	4643.6	4637.0
12.5°	4568.1	4565.9	4554.7	4594.7	4590.3
15°	4494.8	4497.0	4492.5	4530.3	4530.3
17.5°	4410.3	4408.1	4417.0	4463.7	4459.2
20°	4312.6	4314.8	4325.9	4379.2	4379.2
22.5°	4210.4	4208.1	4232.6	4285.9	4290.4
25°	4090.4	4097.1	4125.9	4185.9	4190.4
27.5°	3961.5	3972.6	4008.2	4077.1	4083.7
30°	3826.0	3839.3	3892.6	3957.1	3966.0
32.5°	3677.1	3706.0	3754.9	3837.1	3859.3
35°	3528.3	3552.7	3617.1	3708.2	3730.4
37.5°	3363.8	3403.8	3477.2	3577.1	3606.0
40°	3201.7	3241.6	3332.7	3437.2	3468.3
42.5°	3037.2	3079.5	3183.9	3301.6	3335.0
45°	2866.2	2917.3	3028.4	3155.0	3195.0
47.5°	2690.6	2750.6	2870.6	3008.4	3052.8
50°	2517.3	2577.3	2715.1	2857.3	2897.3
52.5°	2330.7	2406.2	2552.9	2706.2	2746.2
55°	2166.3	2228.5	2392.9	2550.7	2599.5
57.5°	1973.0	2057.4	2232.9	2392.9	2439.6
60°	1801.9	1879.7	2066.3	2228.5	2281.8
62.5°	1628.6	1708.6	1895.2	2079.6	2128.5
65°	1442.0	1539.7	1739.7	1910.8	1975.2
67.5°	1264.2	1366.4	1570.8	1753.0	1819.7
70°	1088.7	1193.1	1415.3	1601.9	1655.3
72.5°	915.4	1024.3	1255.3	1437.5	1499.7
75°	733.2	855.4	1102.0	1279.8	1319.8
77.5°	562.1	697.7	946.5	1066.5	1095.4
80°	402.2	551.0	755.4	842.1	864.3
82.5°	264.4	408.8	564.3	611.0	604.3
85°	142.2	255.5	331.1	337.7	337.7
87.5°	55.5	102.2	104.4	80.0	75.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)