

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: P474500

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474500
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10743.2 lumens
Efficiency: N/A
Efficacy: 116.5 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

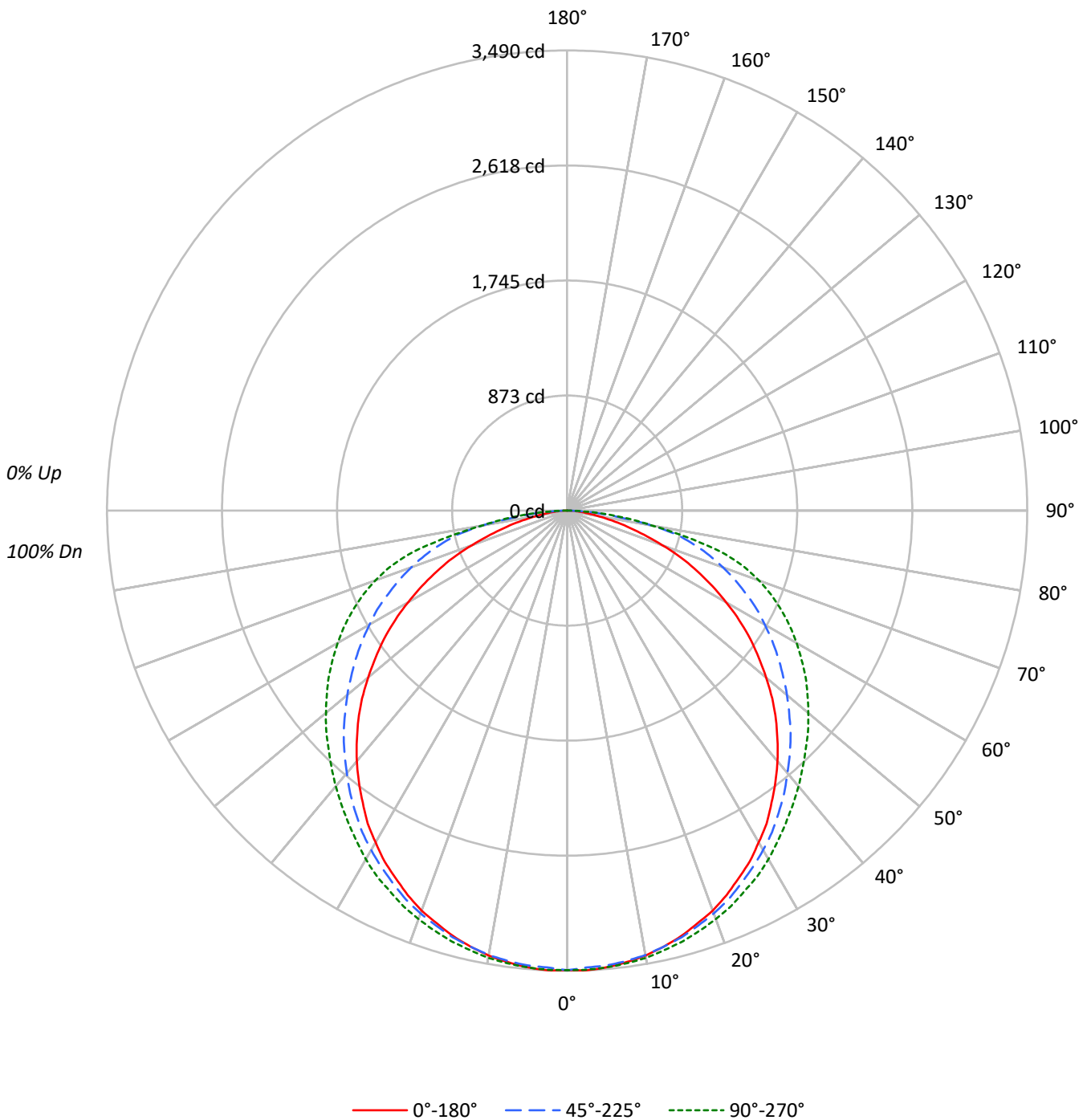
Input Watts (W): 92.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4690	4690	4690
5°	4696	4677	4696
10°	4682	4676	4707
15°	4655	4668	4711
20°	4624	4656	4720
25°	4567	4634	4727
30°	4514	4619	4745
35°	4440	4595	4750
40°	4360	4566	4795
45°	4262	4561	4870
50°	4124	4557	4999
55°	3977	4589	5180
60°	3751	4659	5410
65°	3465	4769	5714
70°	3025	4936	6087
75°	2455	5191	6290
80°	1813	5090	5090
85°	1389	3748	4233



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.2	3.1
10°-20°	948.2	8.8
20°-30°	1443.5	13.4
30°-40°	1752.8	16.3
40°-50°	1851.8	17.2
50°-60°	1747.4	16.3
60°-70°	1452.9	13.5
70°-80°	955.8	8.9
80°-90°	260.5	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°	2721.9	25.3
0°-40°	4474.7	41.7
0°-60°	8073.9	75.2
0°-90°	10743.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10743.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3486	3486	3486	3486	3486	
5°	3477	3477	3463	3477	3477	330
15°	3342	3346	3351	3382	3382	942
25°	3076	3094	3121	3175	3184	1419
35°	2703	2735	2797	2869	2892	1692
45°	2240	2285	2397	2514	2559	1725
55°	1696	1768	1956	2141	2208	1510
65°	1088	1214	1498	1718	1795	1076
75°	472	688	998	1183	1210	509
85°	90	198	243	270	274	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3485.6	3485.6	3485.6	3485.6	3485.6
2.5°	3490.2	3485.6	3467.6	3485.6	3485.6
5°	3476.8	3476.8	3463.0	3476.8	3476.8
7.5°	3454.2	3454.2	3445.0	3463.0	3463.0
10°	3427.0	3427.0	3422.8	3445.0	3445.0
12.5°	3386.8	3391.0	3386.8	3413.6	3413.6
15°	3341.6	3346.2	3350.8	3382.2	3382.2
17.5°	3283.4	3292.2	3301.4	3337.0	3341.6
20°	3229.4	3233.6	3251.6	3292.2	3296.8
22.5°	3157.4	3170.8	3193.4	3233.6	3247.4
25°	3076.2	3094.2	3121.4	3175.4	3184.2
27.5°	3000.0	3013.4	3049.4	3108.0	3126.0
30°	2905.4	2928.0	2972.8	3031.4	3054.0
32.5°	2815.3	2838.0	2892.0	2954.8	2972.8
35°	2703.2	2734.6	2797.3	2869.4	2892.0
37.5°	2595.2	2626.6	2703.2	2784.0	2811.2
40°	2482.5	2518.5	2599.8	2693.9	2730.0
42.5°	2361.1	2410.5	2500.5	2603.9	2644.6
45°	2239.7	2285.0	2397.1	2513.9	2559.2
47.5°	2109.5	2163.6	2285.0	2424.4	2478.4
50°	1970.1	2037.5	2176.9	2329.7	2388.4
52.5°	1830.7	1906.9	2064.3	2235.1	2298.3
55°	1695.5	1767.5	1956.3	2140.9	2208.3
57.5°	1547.3	1637.3	1844.1	2041.7	2109.5
60°	1394.1	1493.3	1731.5	1938.3	2010.3
62.5°	1241.3	1353.9	1623.5	1830.7	1906.9
65°	1088.5	1214.5	1497.9	1718.1	1794.7
67.5°	939.8	1079.2	1380.7	1601.3	1677.5
70°	769.0	944.5	1254.7	1470.7	1547.3
72.5°	611.6	814.3	1133.2	1335.9	1403.3
75°	472.2	688.3	998.5	1182.6	1209.9
77.5°	346.2	562.2	859.1	921.8	926.4
80°	234.0	449.6	656.9	647.6	656.9
82.5°	152.8	337.4	413.6	463.5	467.6
85°	90.0	198.0	242.8	270.0	274.2
87.5°	44.8	67.4	85.4	90.0	98.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)