

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: P474094

Luminaire Tested: **24CZ2-100VHE-S-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474094
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-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: 10402.2 lumens
Efficiency: N/A
Efficacy: 146.3 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

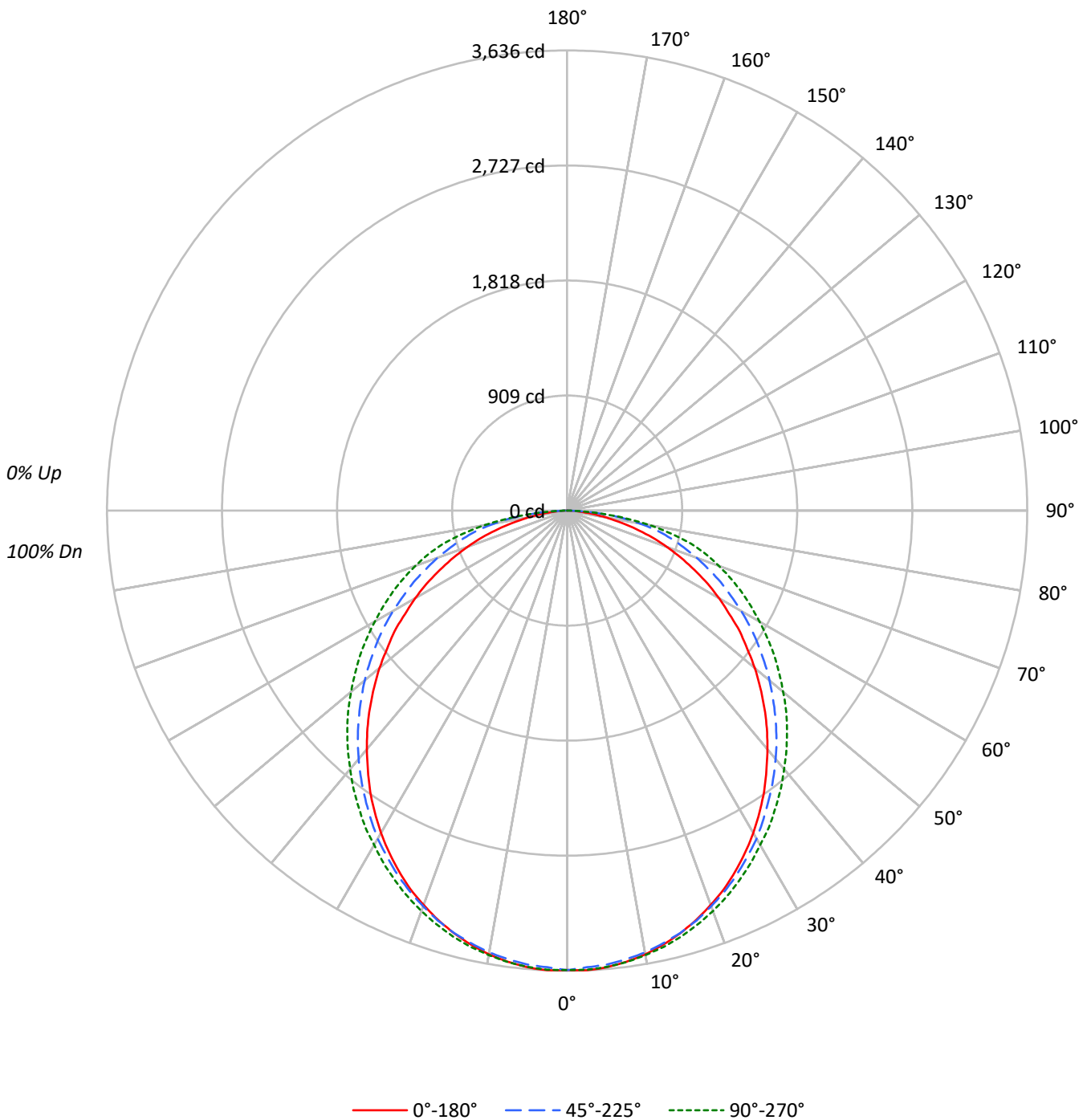
Input Watts (W): 71.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4885	4885	4885
5°	4892	4862	4888
10°	4865	4844	4872
15°	4815	4812	4853
20°	4749	4763	4822
25°	4670	4710	4784
30°	4571	4651	4738
35°	4457	4569	4712
40°	4324	4502	4685
45°	4194	4431	4675
50°	4052	4370	4664
55°	3908	4317	4689
60°	3729	4276	4722
65°	3530	4259	4836
70°	3294	4282	5008
75°	2931	4406	5276
80°	2397	4501	5150
85°	1689	3930	4009



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.3	3.3
10°-20°	977.6	9.4
20°-30°	1465.5	14.1
30°-40°	1745.4	16.8
40°-50°	1799.7	17.3
50°-60°	1642.2	15.8
60°-70°	1313.2	12.6
70°-80°	857.7	8.2
80°-90°	257.5	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°	2786.4	26.8
0°-40°	4531.8	43.6
0°-60°	7973.7	76.7
0°-90°	10402.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10402.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3631	3631	3631	3631	3631	
5°	3622	3616	3600	3622	3619	344
15°	3457	3458	3455	3484	3484	974
25°	3146	3151	3173	3219	3222	1448
35°	2713	2732	2782	2852	2869	1695
45°	2204	2243	2329	2426	2457	1700
55°	1666	1714	1840	1962	1999	1484
65°	1109	1184	1338	1469	1519	1100
75°	564	658	848	984	1015	599
85°	109	196	255	260	260	139
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3630.8	3630.8	3630.8	3630.8	3630.8
2.5°	3636.0	3630.8	3612.0	3634.2	3630.8
5°	3622.3	3615.5	3600.1	3622.3	3618.9
7.5°	3594.9	3591.5	3576.2	3601.8	3598.4
10°	3560.8	3557.4	3545.4	3571.0	3565.9
12.5°	3512.9	3511.2	3502.7	3533.4	3530.0
15°	3456.6	3458.3	3454.8	3483.9	3483.9
17.5°	3391.6	3389.9	3396.7	3432.6	3429.2
20°	3316.4	3318.2	3326.7	3367.7	3367.7
22.5°	3237.8	3236.1	3254.9	3295.9	3299.4
25°	3145.6	3150.7	3172.9	3219.1	3222.5
27.5°	3046.5	3055.0	3082.4	3135.3	3140.5
30°	2942.3	2952.5	2993.5	3043.1	3049.9
32.5°	2827.8	2850.0	2887.6	2950.8	2967.9
35°	2713.3	2732.1	2781.6	2851.7	2868.8
37.5°	2586.9	2617.6	2674.0	2750.9	2773.1
40°	2462.1	2492.9	2562.9	2643.2	2667.2
42.5°	2335.7	2368.2	2448.5	2539.0	2564.6
45°	2204.1	2243.4	2328.9	2426.2	2457.0
47.5°	2069.1	2115.3	2207.5	2313.5	2347.7
50°	1935.9	1982.0	2087.9	2197.3	2228.0
52.5°	1792.3	1850.4	1963.2	2081.1	2111.9
55°	1665.9	1713.8	1840.2	1961.5	1999.1
57.5°	1517.3	1582.2	1717.2	1840.2	1876.1
60°	1385.7	1445.5	1589.0	1713.8	1754.8
62.5°	1252.4	1313.9	1457.5	1599.3	1636.9
65°	1108.9	1184.1	1337.9	1469.4	1519.0
67.5°	972.2	1050.8	1208.0	1348.1	1399.4
70°	837.2	917.5	1088.4	1231.9	1272.9
72.5°	704.0	787.7	965.4	1105.5	1153.3
75°	563.8	657.8	847.5	984.2	1014.9
77.5°	432.3	536.5	727.9	820.1	842.4
80°	309.3	423.7	580.9	647.6	664.7
82.5°	203.3	314.4	434.0	469.9	464.7
85°	109.4	196.5	254.6	259.7	259.7
87.5°	42.7	78.6	80.3	61.5	58.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)