

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: P473894

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473894
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

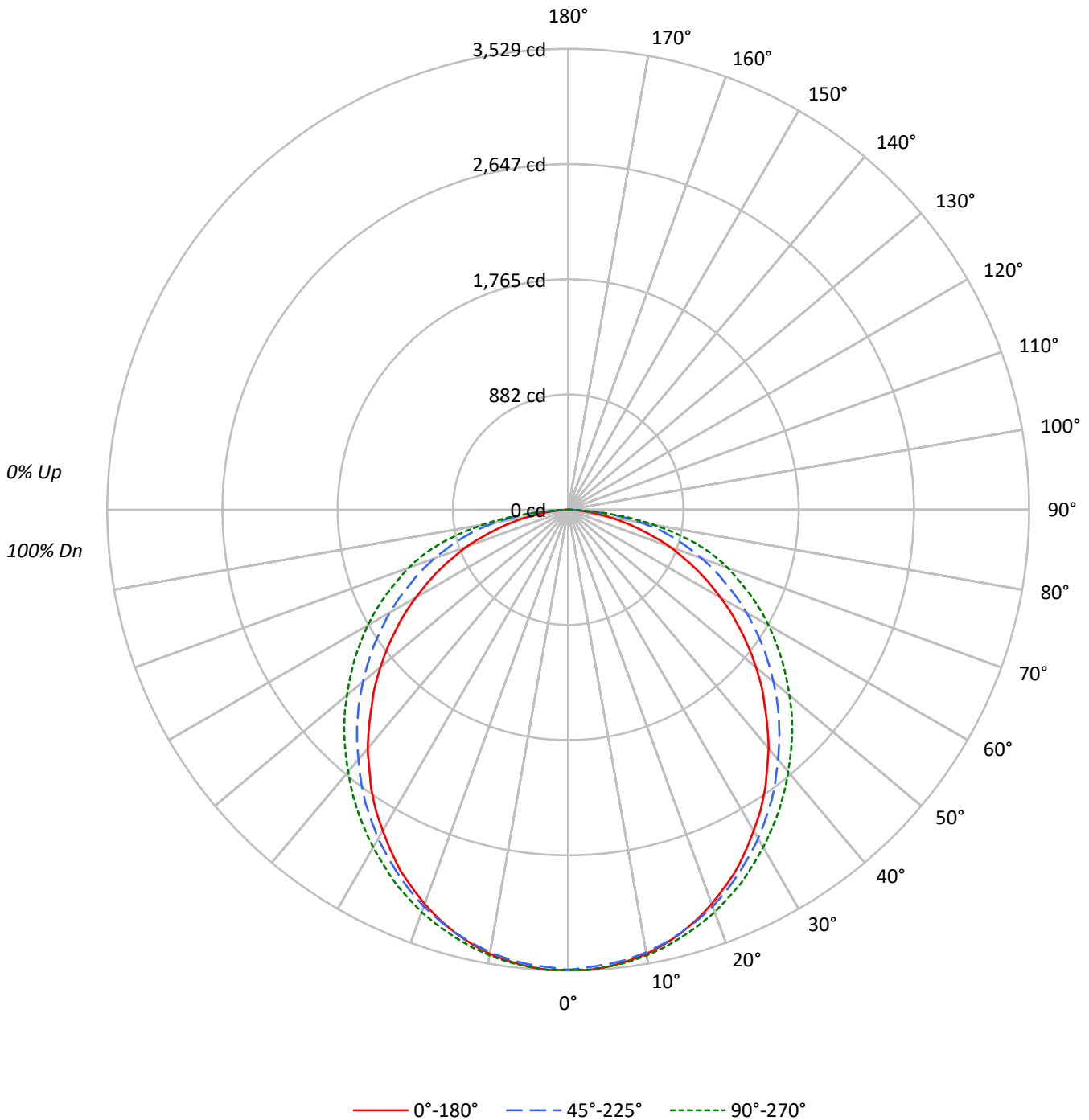
Lumens per Lamp: N/A
Luminaire Lumens: 10198.0 lumens
Efficiency: N/A
Efficacy: 143.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4742	4742	4742
5°	4744	4720	4744
10°	4718	4702	4734
15°	4670	4668	4714
20°	4600	4628	4694
25°	4520	4571	4672
30°	4410	4518	4638
35°	4311	4460	4619
40°	4193	4387	4601
45°	4050	4342	4615
50°	3928	4294	4628
55°	3784	4263	4680
60°	3627	4243	4766
65°	3457	4228	4889
70°	3254	4271	5114
75°	2861	4360	5319
80°	2387	4391	5132
85°	1704	3764	3815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.1	3.3
10°-20°	948.9	9.3
20°-30°	1423.5	14.0
30°-40°	1699.5	16.7
40°-50°	1760.4	17.3
50°-60°	1620.6	15.9
60°-70°	1307.3	12.8
70°-80°	854.2	8.4
80°-90°	250.4	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°	2705.5	26.5
0°-40°	4405.1	43.2
0°-60°	7786.1	76.3
0°-90°	10198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10198.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3524	3524	3524	3524	3524	
5°	3512	3509	3494	3514	3512	333
15°	3353	3353	3351	3384	3384	945
25°	3045	3051	3079	3135	3147	1400
35°	2624	2648	2715	2789	2812	1639
45°	2129	2181	2282	2384	2425	1645
55°	1613	1682	1817	1951	1995	1443
65°	1086	1160	1328	1480	1536	1074
75°	550	654	839	984	1023	587
85°	110	191	244	259	247	137
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3524.0	3524.0	3524.0	3524.0	3524.0
2.5°	3529.0	3524.0	3505.9	3527.3	3525.7
5°	3512.5	3509.2	3494.4	3514.2	3512.5
7.5°	3486.2	3484.5	3473.0	3494.4	3494.4
10°	3453.2	3449.9	3441.7	3466.4	3464.7
12.5°	3407.1	3405.4	3400.5	3430.1	3428.5
15°	3352.7	3352.7	3351.1	3384.0	3384.0
17.5°	3286.8	3288.5	3295.0	3332.9	3334.6
20°	3212.7	3219.3	3232.4	3275.3	3278.6
22.5°	3128.6	3141.8	3159.9	3207.7	3212.7
25°	3044.6	3051.2	3079.2	3135.2	3146.8
27.5°	2942.5	2958.9	2995.2	3052.9	3064.4
30°	2838.7	2861.7	2907.9	2967.2	2985.3
32.5°	2736.5	2756.3	2810.7	2878.2	2899.6
35°	2624.5	2647.6	2715.1	2789.3	2812.3
37.5°	2500.9	2537.2	2608.0	2693.7	2718.4
40°	2387.3	2420.2	2497.6	2593.2	2619.6
42.5°	2257.1	2298.3	2392.2	2489.4	2522.4
45°	2128.6	2181.3	2281.8	2384.0	2425.2
47.5°	2008.3	2051.2	2169.8	2285.1	2321.4
50°	1876.5	1926.0	2051.2	2173.1	2211.0
52.5°	1746.4	1805.7	1932.5	2061.0	2102.2
55°	1612.9	1682.1	1817.2	1950.7	1995.1
57.5°	1484.4	1553.6	1693.7	1835.3	1881.5
60°	1347.7	1421.8	1576.7	1713.4	1771.1
62.5°	1215.9	1290.0	1453.1	1601.4	1655.8
65°	1085.7	1159.9	1327.9	1479.5	1535.5
67.5°	950.6	1031.3	1210.9	1357.6	1411.9
70°	827.1	904.5	1085.7	1242.2	1299.9
72.5°	685.4	777.6	962.2	1117.0	1171.4
75°	550.3	654.1	838.6	983.6	1023.1
77.5°	425.1	528.9	713.4	822.1	846.8
80°	308.1	413.5	566.7	642.5	662.3
82.5°	199.3	308.1	410.2	461.3	467.9
85°	110.4	191.1	243.8	258.7	247.1
87.5°	39.5	72.5	70.8	57.7	46.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)