

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: P475384

Luminaire Tested: **14CZ2-48HE-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475384
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-S-UNV-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

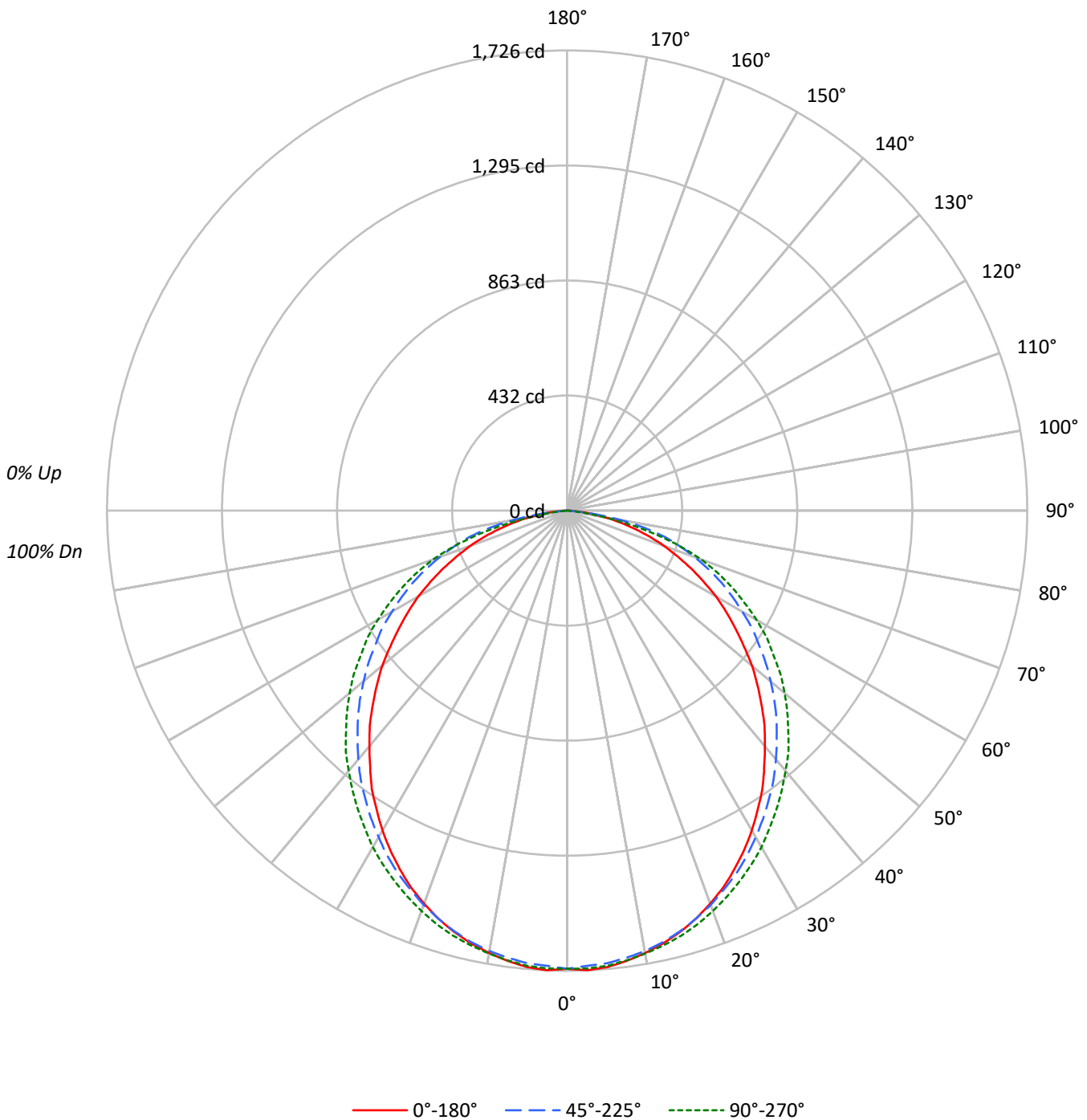
Lumens per Lamp: N/A
Luminaire Lumens: 4803.9 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.7
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	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4625	4625	4625
5°	4642	4603	4629
10°	4604	4584	4610
15°	4559	4552	4600
20°	4493	4507	4576
25°	4408	4458	4551
30°	4305	4395	4530
35°	4195	4337	4496
40°	4053	4282	4477
45°	3922	4225	4464
50°	3790	4173	4456
55°	3613	4122	4428
60°	3469	4079	4417
65°	3258	4057	4350
70°	3039	3988	4197
75°	2686	3915	3538
80°	2170	3180	2095
85°	1565	895	222



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	3.4
10°-20°	462.8	9.6
20°-30°	694.3	14.5
30°-40°	827.6	17.2
40°-50°	854.6	17.8
50°-60°	778.4	16.2
60°-70°	609.8	12.7
70°-80°	352.8	7.3
80°-90°	61.3	1.3
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°	1319.5	27.5
0°-40°	2147.1	44.7
0°-60°	3780.0	78.7
0°-90°	4803.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4803.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1719	1719	1719	1719	1719	
5°	1719	1714	1704	1716	1714	163
15°	1636	1634	1634	1651	1651	461
25°	1484	1489	1501	1530	1533	683
35°	1277	1289	1320	1361	1369	797
45°	1031	1057	1110	1161	1173	796
55°	770	809	879	934	944	690
65°	512	558	637	678	683	507
75°	258	314	376	364	340	275
85°	51	68	29	10	7	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1718.6	1718.6	1718.6	1718.6	1718.6
2.5°	1725.8	1718.6	1708.9	1718.6	1718.6
5°	1718.6	1713.8	1704.1	1716.2	1713.8
7.5°	1704.1	1699.3	1692.0	1704.1	1701.7
10°	1684.8	1682.4	1677.6	1692.0	1687.2
12.5°	1663.1	1660.7	1658.3	1672.7	1670.3
15°	1636.5	1634.1	1634.1	1651.0	1651.0
17.5°	1605.2	1605.2	1605.2	1626.9	1626.9
20°	1568.9	1568.9	1573.8	1597.9	1597.9
22.5°	1530.3	1530.3	1537.6	1564.1	1566.5
25°	1484.5	1489.3	1501.4	1530.3	1532.7
27.5°	1436.2	1443.4	1460.3	1491.7	1496.5
30°	1385.5	1392.7	1414.5	1450.7	1457.9
32.5°	1330.0	1342.1	1368.6	1404.8	1412.1
35°	1276.9	1288.9	1320.3	1361.4	1368.6
37.5°	1214.1	1233.4	1272.1	1310.7	1322.7
40°	1153.8	1175.5	1218.9	1264.8	1274.5
42.5°	1095.8	1115.2	1163.4	1214.1	1228.6
45°	1030.7	1057.2	1110.3	1161.0	1173.1
47.5°	967.9	994.5	1054.8	1107.9	1120.0
50°	905.2	931.7	996.9	1050.0	1064.5
52.5°	835.2	873.8	939.0	992.1	1009.0
55°	770.0	808.6	878.6	934.1	943.8
57.5°	707.2	745.9	823.1	873.8	888.3
60°	644.5	683.1	757.9	808.6	820.7
62.5°	576.9	620.3	697.6	741.0	750.7
65°	511.7	557.6	637.2	678.3	683.1
67.5°	446.5	494.8	572.1	605.9	610.7
70°	386.2	434.5	506.9	538.3	533.4
72.5°	323.4	371.7	441.7	458.6	444.1
75°	258.3	313.8	376.5	364.5	340.3
77.5°	200.3	253.4	294.5	258.3	239.0
80°	140.0	195.5	205.2	159.3	135.2
82.5°	91.7	137.6	111.0	67.6	60.3
85°	50.7	67.6	29.0	9.7	7.2
87.5°	16.9	9.7	4.8	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)