

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: P475402

Luminaire Tested: **14CZ2-48HE-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475402
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-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

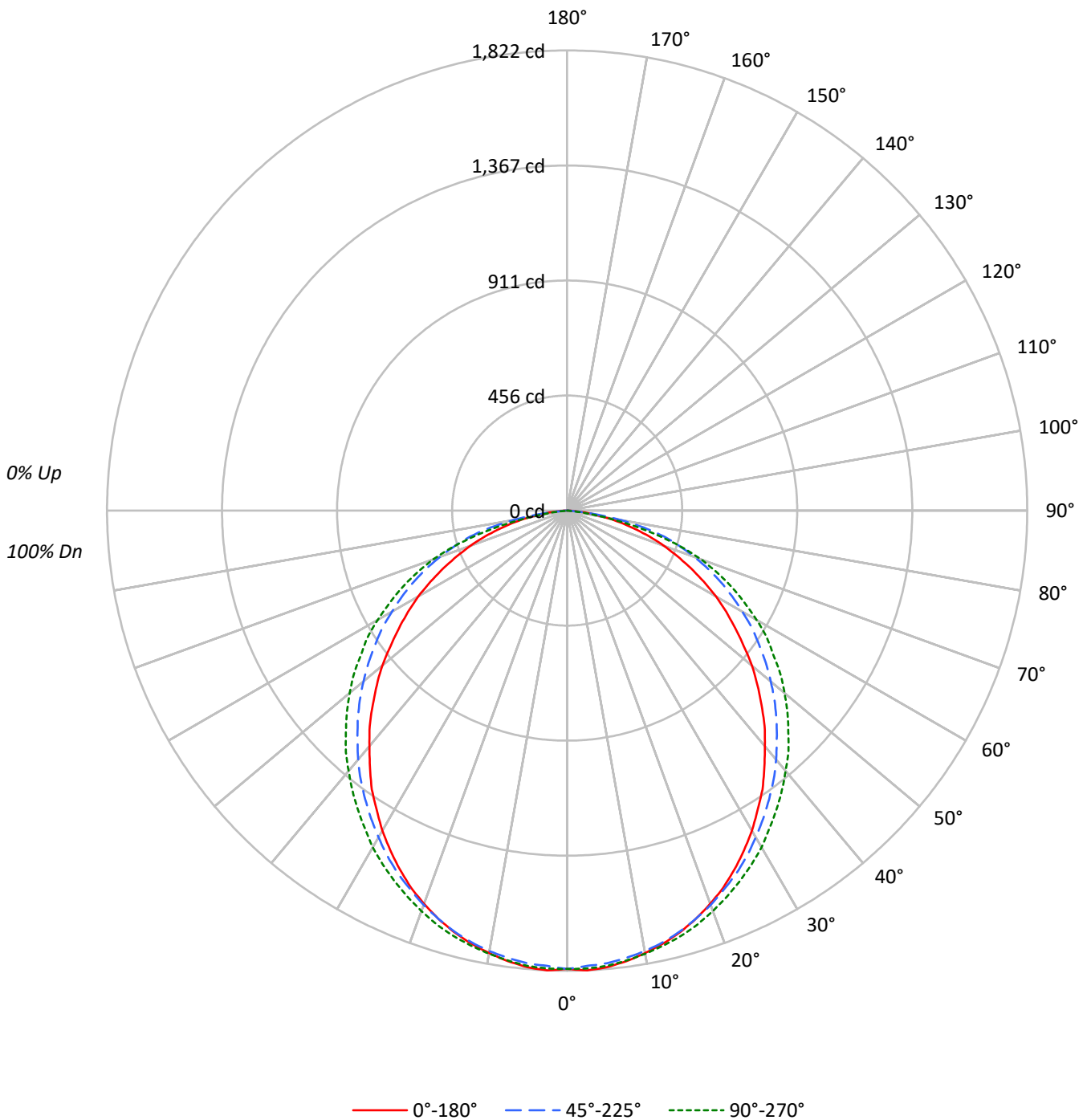
Lumens per Lamp: N/A
Luminaire Lumens: 5072.8 lumens
Efficiency: N/A
Efficacy: 142.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4884	4884	4884
5°	4902	4861	4888
10°	4861	4840	4868
15°	4814	4807	4857
20°	4744	4759	4832
25°	4654	4707	4806
30°	4546	4641	4784
35°	4429	4580	4748
40°	4280	4522	4728
45°	4142	4462	4714
50°	4001	4407	4706
55°	3815	4353	4676
60°	3662	4307	4664
65°	3441	4285	4593
70°	3209	4212	4432
75°	2835	4134	3737
80°	2290	3358	2211
85°	1652	945	235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.6	3.4
10°-20°	488.7	9.6
20°-30°	733.1	14.5
30°-40°	873.9	17.2
40°-50°	902.4	17.8
50°-60°	821.9	16.2
60°-70°	643.9	12.7
70°-80°	372.6	7.3
80°-90°	64.7	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°	1393.4	27.5
0°-40°	2267.3	44.7
0°-60°	3991.6	78.7
0°-90°	5072.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5072.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1815	1815	1815	1815	1815	
5°	1815	1810	1800	1812	1810	172
15°	1728	1726	1726	1743	1743	487
25°	1568	1573	1585	1616	1618	722
35°	1348	1361	1394	1438	1445	841
45°	1088	1116	1172	1226	1239	840
55°	813	854	928	986	997	729
65°	540	589	673	716	721	536
75°	273	331	398	385	359	291
85°	54	71	31	10	8	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1814.8	1814.8	1814.8	1814.8	1814.8
2.5°	1822.4	1814.8	1804.6	1814.8	1814.8
5°	1814.8	1809.7	1799.5	1812.2	1809.7
7.5°	1799.5	1794.4	1786.7	1799.5	1796.9
10°	1779.1	1776.5	1771.4	1786.7	1781.6
12.5°	1756.1	1753.6	1751.0	1766.3	1763.8
15°	1728.1	1725.6	1725.6	1743.4	1743.4
17.5°	1695.0	1695.0	1695.0	1717.9	1717.9
20°	1656.7	1656.7	1661.8	1687.3	1687.3
22.5°	1616.0	1616.0	1623.6	1651.6	1654.2
25°	1567.5	1572.6	1585.4	1616.0	1618.5
27.5°	1516.6	1524.2	1542.0	1575.2	1580.3
30°	1463.0	1470.7	1493.6	1531.8	1539.5
32.5°	1404.4	1417.2	1445.2	1483.4	1491.1
35°	1348.3	1361.1	1394.2	1437.5	1445.2
37.5°	1282.1	1302.5	1343.2	1384.0	1396.8
40°	1218.3	1241.3	1287.2	1335.6	1345.8
42.5°	1157.2	1177.6	1228.5	1282.1	1297.4
45°	1088.4	1116.4	1172.5	1226.0	1238.7
47.5°	1022.1	1050.1	1113.8	1169.9	1182.7
50°	955.8	983.8	1052.7	1108.7	1124.0
52.5°	881.9	922.7	991.5	1047.6	1065.4
55°	813.1	853.9	927.8	986.4	996.6
57.5°	746.8	787.6	869.2	922.7	938.0
60°	680.5	721.3	800.3	853.9	866.6
62.5°	609.2	655.0	736.6	782.5	792.7
65°	540.4	588.8	672.9	716.2	721.3
67.5°	471.5	522.5	604.1	639.8	644.9
70°	407.8	458.8	535.3	568.4	563.3
72.5°	341.5	392.5	466.4	484.3	469.0
75°	272.7	331.3	397.6	384.9	359.4
77.5°	211.6	267.6	311.0	272.7	252.3
80°	147.8	206.5	216.7	168.2	142.7
82.5°	96.9	145.3	117.2	71.4	63.7
85°	53.5	71.4	30.6	10.2	7.6
87.5°	17.8	10.2	5.1	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)