

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: P475348

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475348
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-UNV-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4709.0 lumens
Efficiency: N/A
Efficacy: 131.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

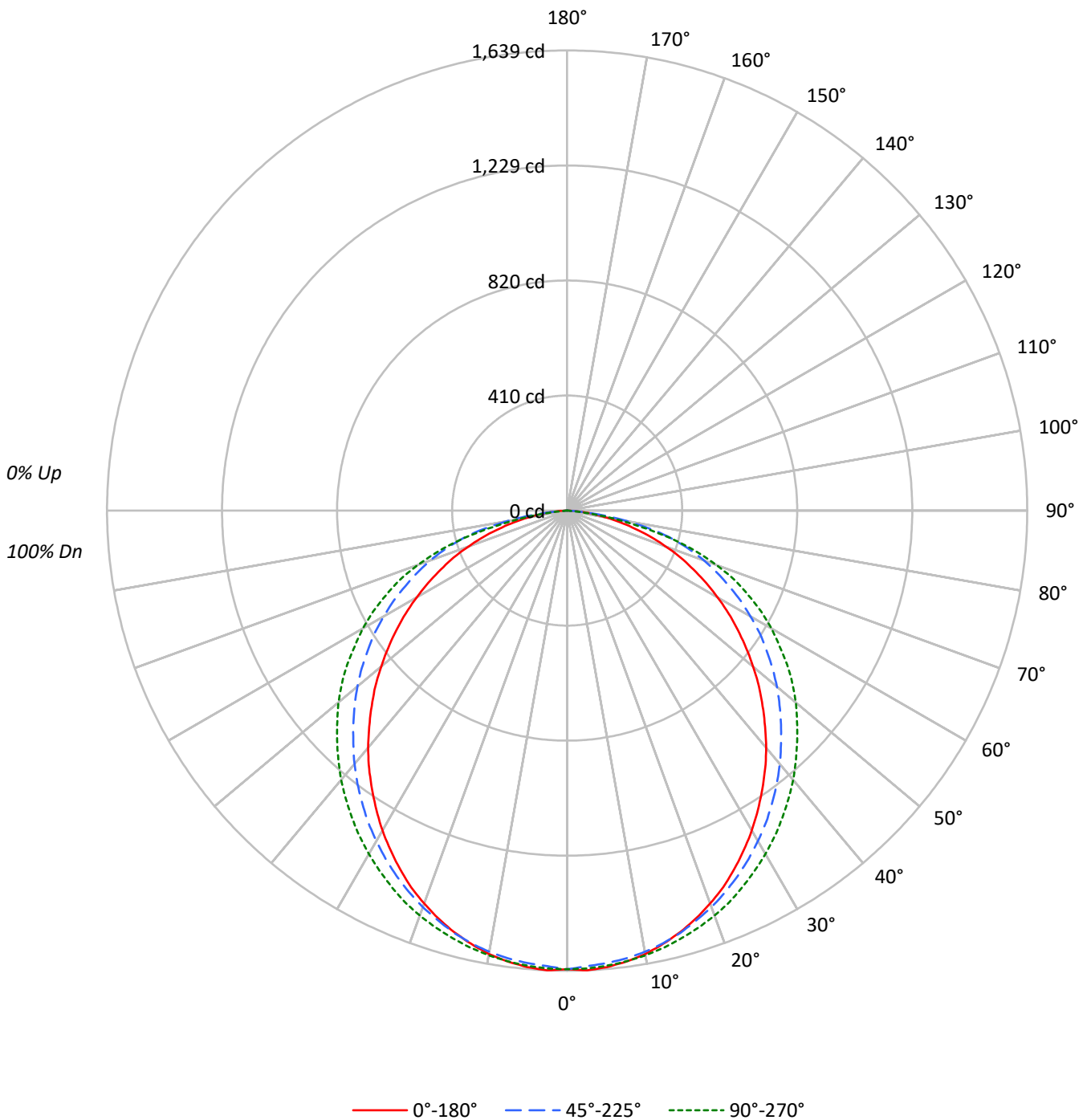
Input Watts (W): 35.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4396	4396	4396
5°	4408	4370	4396
10°	4382	4361	4395
15°	4331	4338	4393
20°	4265	4306	4396
25°	4183	4265	4391
30°	4088	4223	4390
35°	3980	4180	4390
40°	3874	4140	4400
45°	3746	4101	4410
50°	3619	4082	4451
55°	3483	4063	4489
60°	3328	4059	4521
65°	3160	4048	4530
70°	2942	4072	4444
75°	2608	4018	3986
80°	2188	3361	2713
85°	1535	1315	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	3.3
10°-20°	441.1	9.4
20°-30°	664.7	14.1
30°-40°	797.9	16.9
40°-50°	830.6	17.6
50°-60°	767.5	16.3
60°-70°	614.7	13.1
70°-80°	367.8	7.8
80°-90°	70.1	1.5
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°	1260.4	26.8
0°-40°	2058.2	43.7
0°-60°	3656.3	77.6
0°-90°	4709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1634	1634	1634	1634	1634	
5°	1632	1628	1618	1630	1627	155
15°	1555	1555	1557	1577	1577	438
25°	1409	1417	1436	1473	1479	649
35°	1212	1230	1272	1323	1336	758
45°	984	1014	1078	1141	1159	760
55°	742	782	866	933	957	664
65°	496	547	636	698	712	492
75°	251	314	386	392	383	268
85°	50	73	43	17	10	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1633.6	1633.6	1633.6	1633.6	1633.6
2.5°	1639.1	1634.4	1624.2	1634.4	1632.0
5°	1632.0	1628.1	1617.9	1629.7	1627.3
7.5°	1620.2	1617.1	1609.2	1621.8	1619.4
10°	1603.7	1601.3	1595.8	1610.0	1608.4
12.5°	1580.8	1581.6	1578.4	1595.8	1594.2
15°	1554.7	1554.7	1557.1	1576.8	1576.8
17.5°	1524.0	1525.6	1530.3	1556.3	1557.1
20°	1489.3	1493.2	1503.5	1530.3	1535.0
22.5°	1452.2	1456.9	1471.1	1502.7	1509.8
25°	1408.8	1416.7	1436.4	1472.7	1479.0
27.5°	1363.1	1374.9	1399.4	1438.8	1446.7
30°	1315.7	1328.4	1359.1	1401.7	1412.8
32.5°	1264.5	1281.0	1318.1	1363.1	1375.7
35°	1211.6	1229.8	1272.4	1322.8	1336.2
37.5°	1158.8	1178.5	1226.6	1281.0	1294.4
40°	1102.8	1125.6	1178.5	1234.5	1252.6
42.5°	1043.6	1068.8	1127.2	1188.7	1206.1
45°	984.4	1013.6	1077.5	1141.4	1158.8
47.5°	926.9	956.8	1026.2	1092.5	1110.6
50°	864.5	899.2	975.0	1040.4	1063.3
52.5°	803.8	842.4	922.1	988.4	1011.3
55°	742.3	782.5	866.1	933.2	956.8
57.5°	682.3	724.9	813.3	879.5	896.1
60°	618.4	665.0	754.1	821.2	840.1
62.5°	558.5	606.6	696.5	761.2	779.3
65°	496.2	547.4	635.8	698.1	711.5
67.5°	437.8	489.1	578.2	631.8	645.2
70°	373.9	430.7	517.5	563.2	564.8
72.5°	313.2	370.7	455.1	484.3	480.4
75°	250.8	313.9	386.5	392.0	383.4
77.5°	194.8	257.9	307.6	290.3	272.9
80°	141.2	202.7	216.9	190.1	175.1
82.5°	93.1	142.0	130.9	93.9	80.5
85°	49.7	72.6	42.6	17.4	10.3
87.5°	18.9	12.6	4.7	3.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)