

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: P475393

Luminaire Tested: **14CZ2-48HE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475393  
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-L835-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

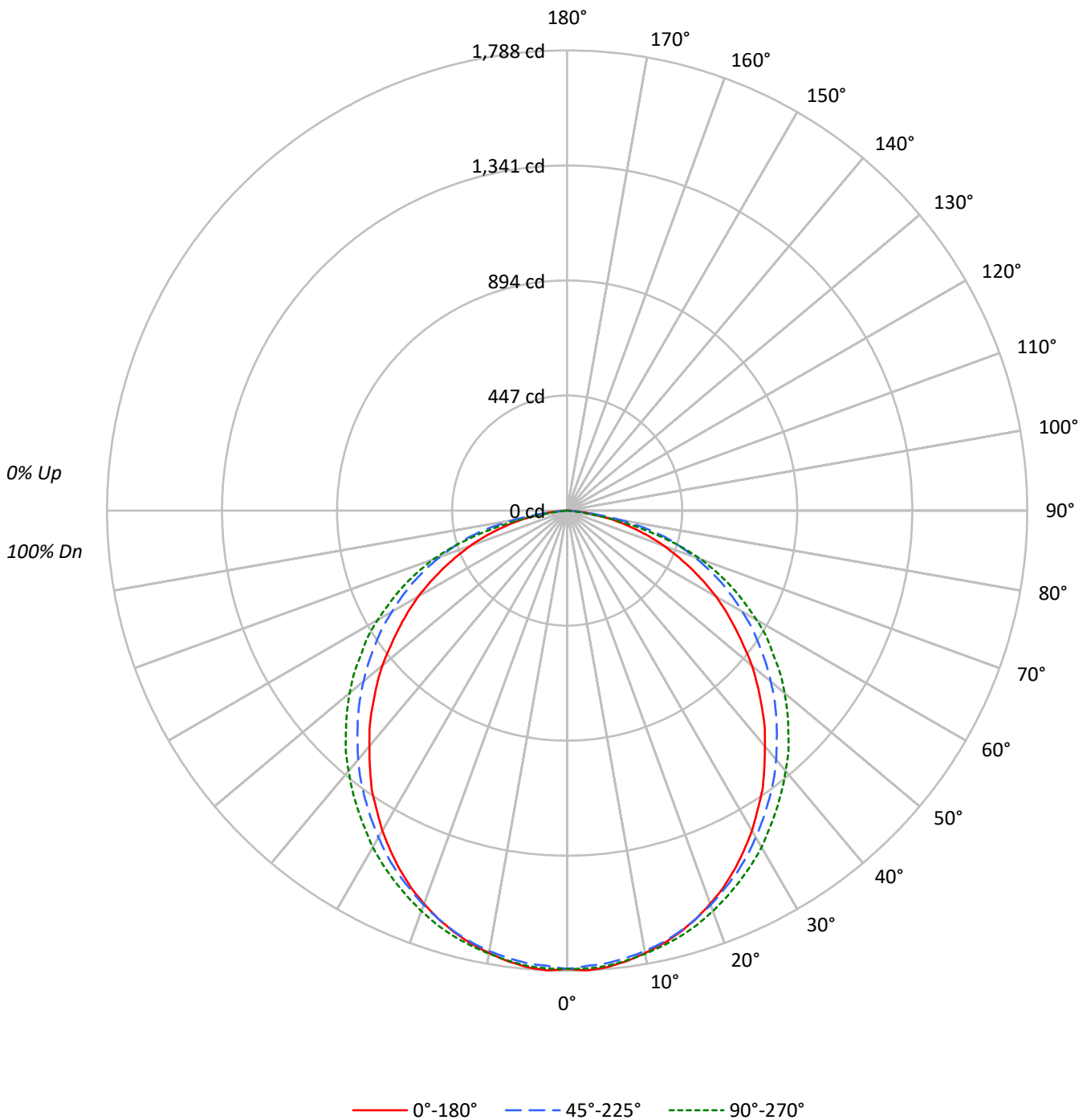
Lumens per Lamp: N/A  
Luminaire Lumens: 4978.1 lumens  
Efficiency: N/A  
Efficacy: 139.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	4792	4792	4792
5°	4811	4770	4797
10°	4771	4750	4777
15°	4725	4718	4766
20°	4656	4670	4742
25°	4567	4619	4716
30°	4461	4555	4694
35°	4347	4495	4659
40°	4200	4437	4639
45°	4065	4379	4626
50°	3927	4325	4618
55°	3743	4272	4588
60°	3594	4227	4577
65°	3377	4204	4507
70°	3149	4133	4349
75°	2782	4057	3667
80°	2249	3295	2171
85°	1621	926	232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.4	3.4
10°-20°	479.6	9.6
20°-30°	719.4	14.5
30°-40°	857.6	17.2
40°-50°	885.6	17.8
50°-60°	806.6	16.2
60°-70°	631.9	12.7
70°-80°	365.6	7.3
80°-90°	63.5	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°	1367.4	27.5
0°-40°	2225.0	44.7
0°-60°	3917.1	78.7
0°-90°	4978.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4978.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1781	1781	1781	1781	1781	
5°	1781	1776	1766	1778	1776	169
15°	1696	1693	1693	1711	1711	478
25°	1538	1543	1556	1586	1588	708
35°	1323	1336	1368	1411	1418	826
45°	1068	1096	1151	1203	1216	825
55°	798	838	910	968	978	715
65°	530	578	660	703	708	526
75°	268	325	390	378	353	285
85°	52	70	30	10	8	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1780.9	1780.9	1780.9	1780.9	1780.9
2.5°	1788.4	1780.9	1770.9	1780.9	1780.9
5°	1780.9	1775.9	1765.9	1778.4	1775.9
7.5°	1765.9	1760.9	1753.4	1765.9	1763.4
10°	1745.9	1743.4	1738.4	1753.4	1748.4
12.5°	1723.4	1720.9	1718.4	1733.4	1730.9
15°	1695.9	1693.4	1693.4	1710.9	1710.9
17.5°	1663.4	1663.4	1663.4	1685.9	1685.9
20°	1625.8	1625.8	1630.9	1655.9	1655.9
22.5°	1585.8	1585.8	1593.3	1620.8	1623.3
25°	1538.3	1543.3	1555.8	1585.8	1588.3
27.5°	1488.3	1495.8	1513.3	1545.8	1550.8
30°	1435.7	1443.3	1465.8	1503.3	1510.8
32.5°	1378.2	1390.7	1418.2	1455.8	1463.3
35°	1323.2	1335.7	1368.2	1410.7	1418.2
37.5°	1258.2	1278.2	1318.2	1358.2	1370.7
40°	1195.6	1218.1	1263.2	1310.7	1320.7
42.5°	1135.6	1155.6	1205.6	1258.2	1273.2
45°	1068.1	1095.6	1150.6	1203.1	1215.6
47.5°	1003.0	1030.5	1093.1	1148.1	1160.6
50°	938.0	965.5	1033.0	1088.1	1103.1
52.5°	865.5	905.5	973.0	1028.0	1045.5
55°	797.9	837.9	910.5	968.0	978.0
57.5°	732.9	772.9	852.9	905.5	920.5
60°	667.8	707.9	785.4	837.9	850.4
62.5°	597.8	642.8	722.9	767.9	777.9
65°	530.3	577.8	660.3	702.9	707.9
67.5°	462.7	512.8	592.8	627.8	632.8
70°	400.2	450.2	525.3	557.8	552.8
72.5°	335.2	385.2	457.7	475.2	460.2
75°	267.6	325.2	390.2	377.7	352.7
77.5°	207.6	262.6	305.2	267.6	247.6
80°	145.1	202.6	212.6	165.1	140.1
82.5°	95.0	142.6	115.1	70.0	62.5
85°	52.5	70.0	30.0	10.0	7.5
87.5°	17.5	10.0	5.0	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)