

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: P474945

Luminaire Tested: **22CZ2-44HE-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474945  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-S-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

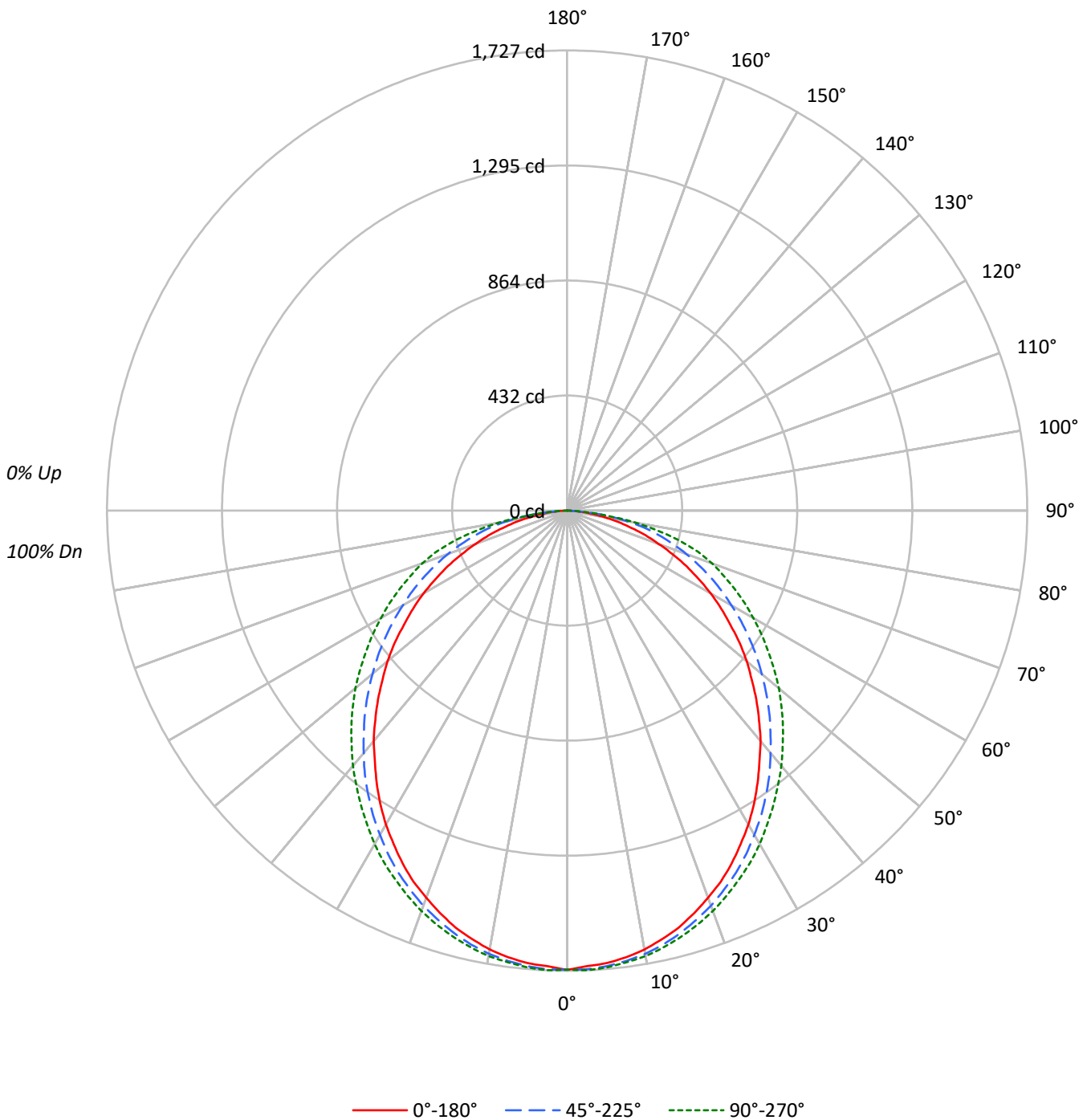
Lumens per Lamp: N/A  
Luminaire Lumens: 4747.1 lumens  
Efficiency: N/A  
Efficacy: 144.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 32.8  
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	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	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	32	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4637	4637	4637
5°	4605	4636	4649
10°	4571	4614	4639
15°	4513	4573	4612
20°	4428	4520	4579
25°	4339	4451	4533
30°	4227	4366	4491
35°	4095	4276	4434
40°	3967	4173	4395
45°	3821	4083	4359
50°	3684	3992	4343
55°	3509	3913	4322
60°	3351	3834	4341
65°	3145	3789	4404
70°	2874	3742	4546
75°	2580	3715	4551
80°	2173	3507	4042
85°	1630	2377	2198



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.8	3.4
10°-20°	462.2	9.7
20°-30°	689.2	14.5
30°-40°	813.2	17.1
40°-50°	828.5	17.5
50°-60°	747.2	15.7
60°-70°	586.8	12.4
70°-80°	366.9	7.7
80°-90°	90.4	1.9
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°	1314.1	27.7
0°-40°	2127.3	44.8
0°-60°	3703.0	78.0
0°-90°	4747.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4747.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1705	1708	1716	1720	1721	162
15°	1620	1626	1642	1653	1655	456
25°	1461	1469	1499	1521	1527	672
35°	1246	1264	1302	1337	1350	780
45°	1004	1021	1073	1125	1145	775
55°	748	772	834	898	921	671
65°	494	520	595	662	692	488
75°	248	283	357	418	438	265
85°	53	68	77	76	71	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1711.7	1715.2	1723.2	1726.6	1726.6
5°	1704.8	1708.3	1716.3	1719.8	1720.9
7.5°	1691.0	1695.6	1704.8	1709.4	1709.4
10°	1672.7	1678.4	1688.7	1695.6	1697.9
12.5°	1647.4	1654.3	1668.1	1676.1	1678.4
15°	1619.8	1625.6	1641.6	1653.1	1655.4
17.5°	1584.2	1593.4	1610.6	1625.6	1629.0
20°	1546.3	1556.6	1578.5	1595.7	1599.1
22.5°	1507.2	1515.3	1539.4	1560.1	1564.7
25°	1461.3	1469.3	1499.2	1521.0	1526.8
27.5°	1410.7	1424.5	1454.4	1479.7	1488.8
30°	1360.2	1374.0	1405.0	1434.9	1445.2
32.5°	1305.0	1320.0	1355.6	1386.6	1396.9
35°	1246.4	1263.7	1301.6	1337.2	1349.8
37.5°	1185.6	1205.1	1247.6	1285.5	1299.3
40°	1129.3	1143.1	1187.9	1231.5	1251.0
42.5°	1066.1	1084.5	1129.3	1178.7	1197.1
45°	1004.1	1021.3	1073.0	1124.7	1145.4
47.5°	939.7	961.5	1013.2	1070.7	1091.4
50°	880.0	898.4	953.5	1014.4	1037.4
52.5°	815.6	835.2	894.9	958.1	978.8
55°	747.9	772.0	834.0	898.4	921.3
57.5°	685.8	708.8	774.3	840.9	865.0
60°	622.7	645.6	712.3	780.0	806.5
62.5°	556.0	582.4	654.8	720.3	750.2
65°	494.0	520.4	595.1	661.7	691.6
67.5°	428.5	459.5	534.2	604.3	634.1
70°	365.3	402.1	475.6	544.5	577.8
72.5°	309.0	338.9	415.9	488.2	515.8
75°	248.1	282.6	357.3	418.2	437.7
77.5°	196.4	226.3	297.5	337.7	350.4
80°	140.2	173.5	226.3	250.4	260.8
82.5°	93.1	120.6	153.9	158.5	156.2
85°	52.8	67.8	77.0	75.8	71.2
87.5°	20.7	23.0	17.2	10.3	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)