

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: P272047

Luminaire Tested: **22CZ2-44HE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P272047  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-S-UNV-L940-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (196) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

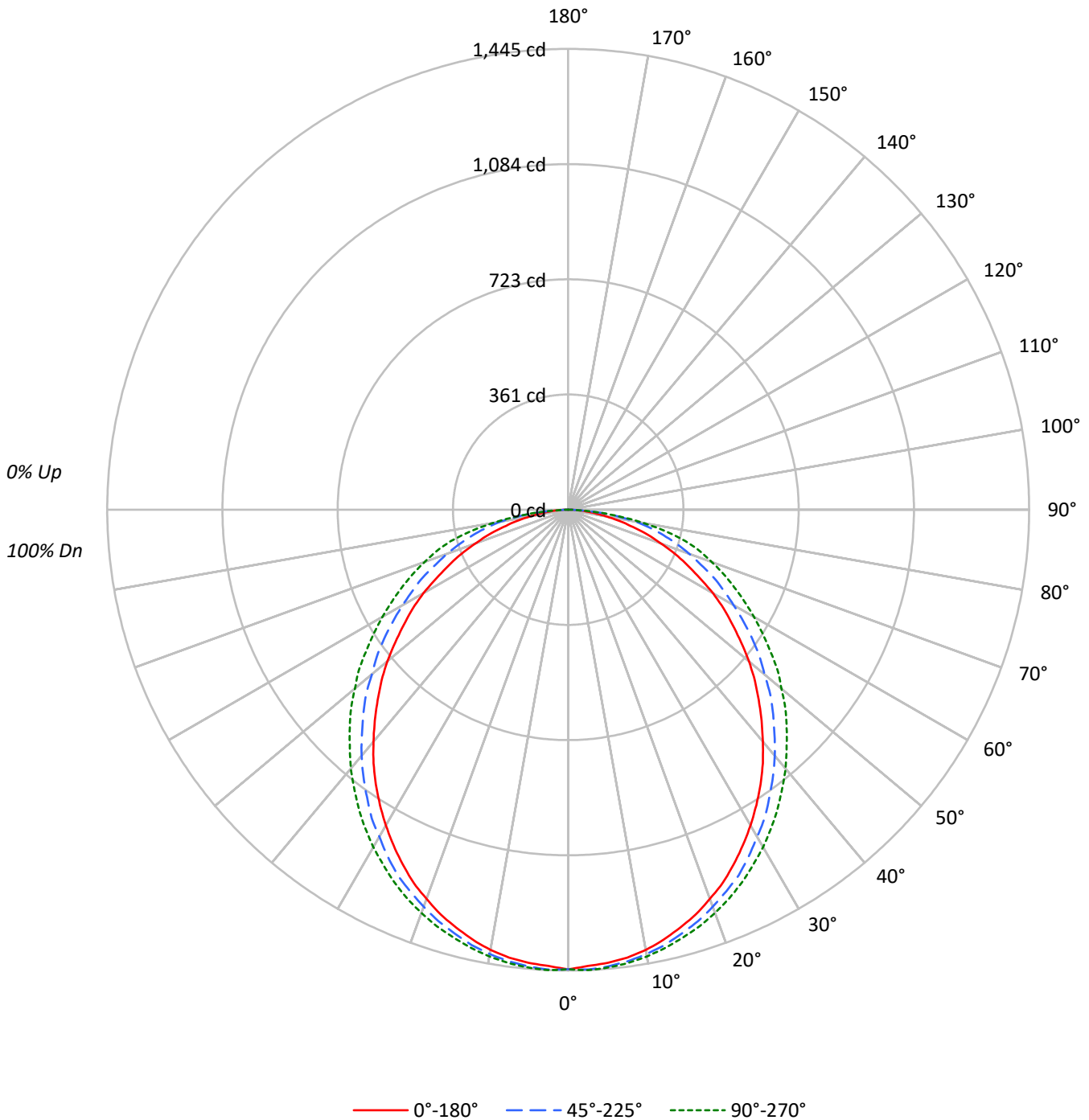
Lumens per Lamp: N/A  
Luminaire Lumens: 4022.0 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): NR  
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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	3878	3878	3878
5°	3853	3883	3893
10°	3830	3866	3887
15°	3780	3832	3869
20°	3719	3794	3853
25°	3644	3755	3828
30°	3551	3679	3796
35°	3452	3613	3760
40°	3335	3540	3725
45°	3214	3457	3685
50°	3095	3363	3653
55°	2950	3301	3627
60°	2818	3222	3616
65°	2628	3202	3656
70°	2422	3175	3765
75°	2185	3219	3960
80°	1891	3315	3722
85°	1565	2782	2782



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.3	3.4
10°-20°	387.9	9.6
20°-30°	580.3	14.4
30°-40°	687.3	17.1
40°-50°	700.4	17.4
50°-60°	627.8	15.6
60°-70°	491.5	12.2
70°-80°	316.9	7.9
80°-90°	93.6	2.3
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°	1104.5	27.5
0°-40°	1791.8	44.5
0°-60°	3120.0	77.6
0°-90°	4022.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4022.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1426	1430	1438	1439	1441	135
15°	1357	1364	1376	1387	1389	383
25°	1227	1238	1265	1282	1289	565
35°	1051	1064	1100	1134	1145	657
45°	844	863	908	955	968	652
55°	629	649	704	752	773	564
65°	413	437	503	552	574	410
75°	210	242	310	362	381	225
85°	51	69	90	90	90	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1441.2	1441.2	1441.2	1441.2	1441.2
2.5°	1431.8	1435.6	1443.1	1445.0	1445.0
5°	1426.2	1429.9	1437.5	1439.3	1441.2
7.5°	1416.8	1418.7	1428.1	1431.8	1433.7
10°	1401.8	1405.6	1414.9	1420.6	1422.4
12.5°	1381.2	1386.8	1398.0	1405.6	1407.4
15°	1356.8	1364.3	1375.5	1386.8	1388.7
17.5°	1330.5	1338.0	1353.0	1366.1	1369.9
20°	1298.6	1308.0	1324.9	1339.9	1345.5
22.5°	1266.7	1274.2	1294.8	1313.6	1319.2
25°	1227.3	1238.5	1264.8	1281.7	1289.2
27.5°	1186.0	1199.1	1225.4	1247.9	1255.4
30°	1142.8	1156.0	1184.1	1212.3	1221.6
32.5°	1097.8	1112.8	1146.6	1174.7	1184.1
35°	1050.9	1064.0	1099.7	1133.5	1144.7
37.5°	1002.1	1013.3	1054.6	1090.3	1101.5
40°	949.5	964.6	1007.7	1049.0	1060.3
42.5°	897.0	913.9	957.1	1002.1	1013.3
45°	844.5	863.2	908.3	955.2	968.3
47.5°	793.8	808.8	859.5	904.5	923.3
50°	739.4	754.4	803.2	853.8	872.6
52.5°	683.1	703.7	756.3	805.0	827.6
55°	628.7	649.3	703.7	752.5	773.1
57.5°	578.0	594.9	651.2	701.8	722.5
60°	523.6	538.6	598.6	653.0	671.8
62.5°	465.4	487.9	549.8	600.5	623.0
65°	412.8	437.2	502.9	551.7	574.2
67.5°	364.1	386.6	450.4	502.9	527.3
70°	307.8	337.8	403.5	456.0	478.5
72.5°	262.7	289.0	356.5	409.1	433.5
75°	210.2	242.1	309.6	362.2	380.9
77.5°	167.0	198.9	262.7	304.0	313.4
80°	122.0	153.9	213.9	234.6	240.2
82.5°	82.6	112.6	153.9	159.5	161.4
85°	50.7	69.4	90.1	90.1	90.1
87.5°	24.4	28.1	31.9	30.0	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)