

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: P272046

Luminaire Tested: **22CZ2-44HE-S-UNV-L935-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: P272046  
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-L935-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (196) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3980.0 lumens  
Efficiency: N/A  
Efficacy: 113.7 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

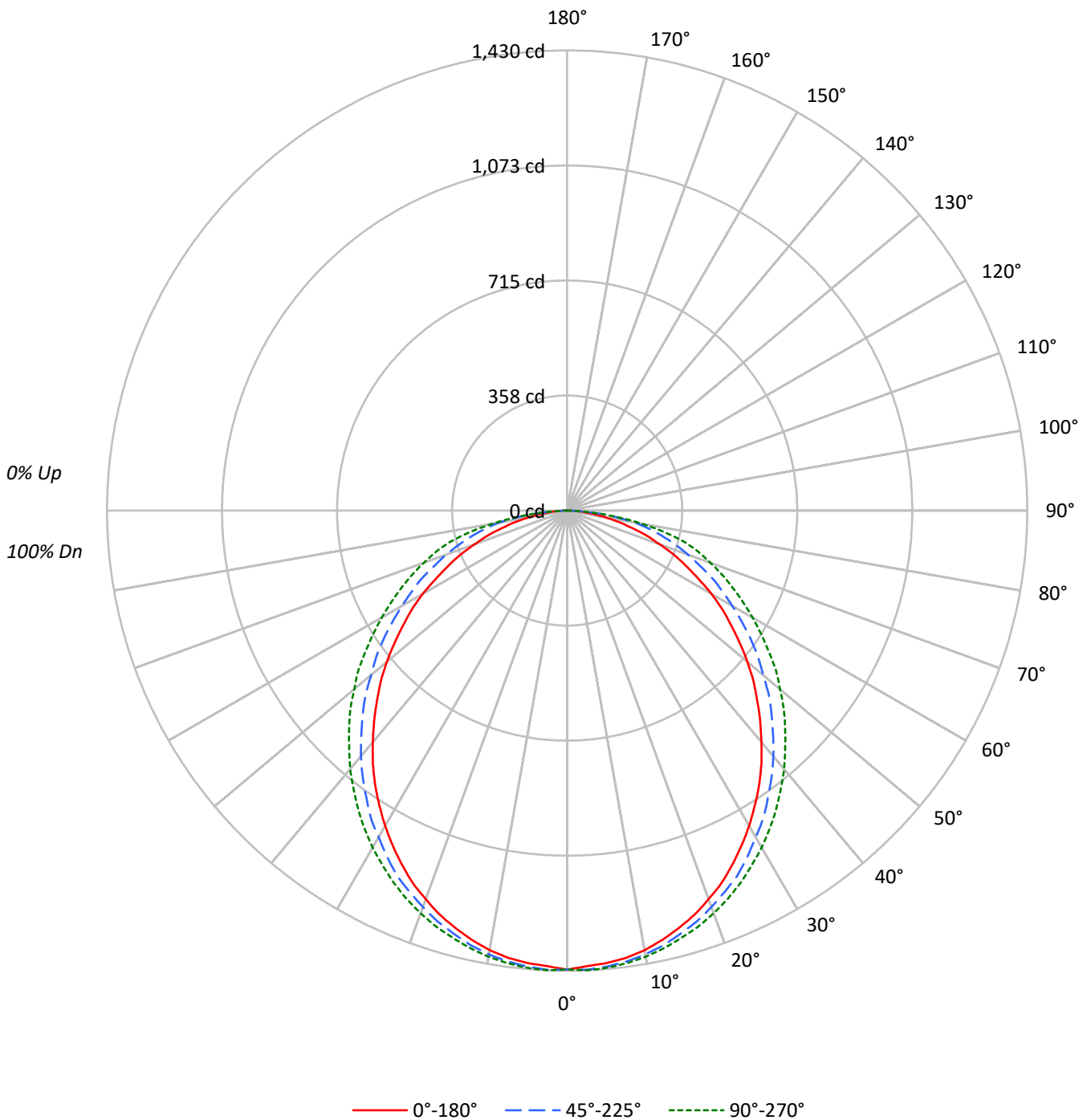
Input Watts (W): 35  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

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

	0°	45°	90°
0°	3838	3838	3838
5°	3812	3842	3853
10°	3791	3826	3846
15°	3740	3792	3828
20°	3680	3754	3813
25°	3606	3716	3788
30°	3514	3641	3756
35°	3416	3575	3721
40°	3301	3503	3686
45°	3180	3420	3647
50°	3063	3327	3615
55°	2919	3267	3590
60°	2788	3188	3578
65°	2601	3169	3618
70°	2396	3141	3725
75°	2163	3186	3920
80°	1870	3281	3684
85°	1547	2751	2751



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.9	3.4
10°-20°	383.8	9.6
20°-30°	574.3	14.4
30°-40°	680.1	17.1
40°-50°	693.1	17.4
50°-60°	621.2	15.6
60°-70°	486.4	12.2
70°-80°	313.6	7.9
80°-90°	92.6	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°	1093.0	27.5
0°-40°	1773.1	44.5
0°-60°	3087.4	77.6
0°-90°	3980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3980.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1426	1426	1426	1426	1426	
5°	1411	1415	1422	1424	1426	134
15°	1343	1350	1361	1372	1374	379
25°	1214	1226	1252	1268	1276	559
35°	1040	1053	1088	1122	1133	650
45°	836	854	899	945	958	645
55°	622	642	696	745	765	558
65°	408	433	498	546	568	406
75°	208	240	306	358	377	223
85°	50	69	89	89	89	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1426.2	1426.2	1426.2	1426.2	1426.2
2.5°	1416.9	1420.6	1428.0	1429.9	1429.9
5°	1411.3	1415.0	1422.4	1424.3	1426.2
7.5°	1402.0	1403.9	1413.2	1416.9	1418.7
10°	1387.2	1390.9	1400.2	1405.7	1407.6
12.5°	1366.7	1372.3	1383.4	1390.9	1392.7
15°	1342.6	1350.0	1361.2	1372.3	1374.2
17.5°	1316.6	1324.0	1338.9	1351.9	1355.6
20°	1285.0	1294.3	1311.0	1325.9	1331.5
22.5°	1253.5	1260.9	1281.3	1299.9	1305.5
25°	1214.5	1225.6	1251.6	1268.3	1275.7
27.5°	1173.6	1186.6	1212.6	1234.9	1242.3
30°	1130.9	1143.9	1171.8	1199.6	1208.9
32.5°	1086.3	1101.2	1134.6	1162.5	1171.8
35°	1039.9	1052.9	1088.2	1121.6	1132.8
37.5°	991.6	1002.8	1043.6	1078.9	1090.0
40°	939.6	954.5	997.2	1038.0	1049.2
42.5°	887.6	904.3	947.1	991.6	1002.8
45°	835.6	854.2	898.8	945.2	958.2
47.5°	785.5	800.4	850.5	895.1	913.6
50°	731.6	746.5	794.8	844.9	863.5
52.5°	675.9	696.4	748.4	796.6	818.9
55°	622.1	642.5	696.4	744.6	765.1
57.5°	571.9	588.7	644.4	694.5	714.9
60°	518.1	533.0	592.4	646.2	664.8
62.5°	460.5	482.8	544.1	594.2	616.5
65°	408.5	432.7	497.7	546.0	568.2
67.5°	360.3	382.5	445.7	497.7	521.8
70°	304.5	334.3	399.2	451.2	473.5
72.5°	260.0	286.0	352.8	404.8	429.0
75°	208.0	239.5	306.4	358.4	377.0
77.5°	165.3	196.8	260.0	300.8	310.1
80°	120.7	152.3	211.7	232.1	237.7
82.5°	81.7	111.4	152.3	157.8	159.7
85°	50.1	68.7	89.1	89.1	89.1
87.5°	24.1	27.9	31.6	29.7	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)