

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: P475347

Luminaire Tested: **14CZ2-39HE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475347  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39HE-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: 3778.8 lumens  
Efficiency: N/A  
Efficacy: 133.1 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

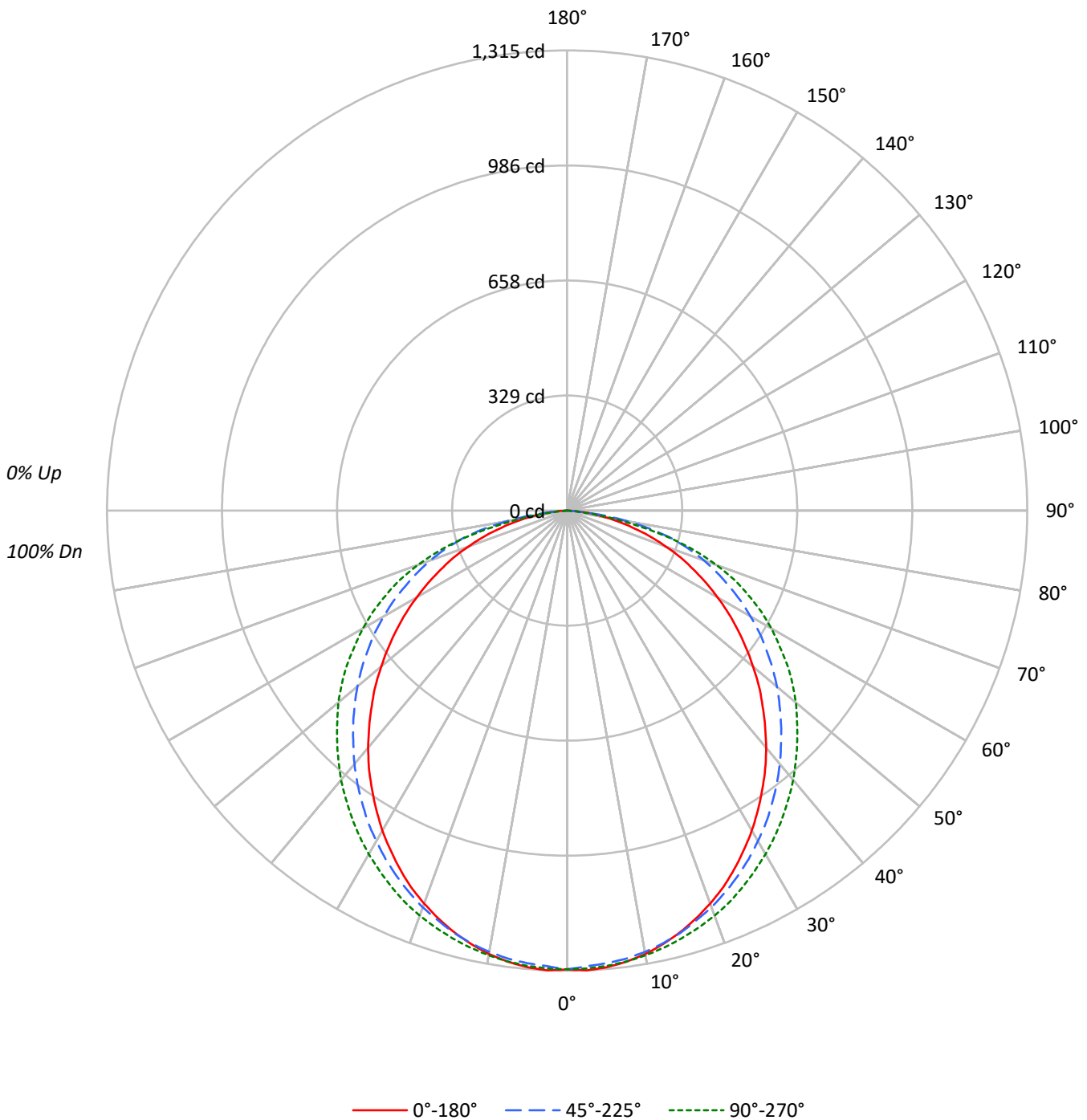
Input Watts (W): 28.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37					37			
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24					24			

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

	0°	45°	90°
0°	3528	3528	3528
5°	3538	3507	3528
10°	3516	3499	3527
15°	3476	3481	3525
20°	3422	3455	3527
25°	3357	3423	3524
30°	3281	3389	3523
35°	3194	3354	3523
40°	3108	3322	3531
45°	3006	3291	3539
50°	2905	3275	3572
55°	2794	3261	3602
60°	2671	3257	3628
65°	2535	3249	3636
70°	2360	3267	3566
75°	2093	3225	3198
80°	1756	2698	2177
85°	1232	1056	253



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.0	3.3
10°-20°	354.0	9.4
20°-30°	533.4	14.1
30°-40°	640.3	16.9
40°-50°	666.5	17.6
50°-60°	615.9	16.3
60°-70°	493.3	13.1
70°-80°	295.2	7.8
80°-90°	56.3	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°	1011.4	26.8
0°-40°	1651.6	43.7
0°-60°	2934.0	77.6
0°-90°	3778.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3778.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1311	1311	1311	1311	1311	
5°	1310	1306	1298	1308	1306	124
15°	1248	1248	1250	1265	1265	352
25°	1130	1137	1153	1182	1187	521
35°	972	987	1021	1062	1072	608
45°	790	813	865	916	930	610
55°	596	628	695	749	768	533
65°	398	439	510	560	571	395
75°	201	252	310	315	308	215
85°	40	58	34	14	8	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1310.9	1310.9	1310.9	1310.9	1310.9
2.5°	1315.3	1311.6	1303.3	1311.6	1309.7
5°	1309.7	1306.5	1298.3	1307.8	1305.9
7.5°	1300.2	1297.6	1291.3	1301.4	1299.5
10°	1286.9	1285.0	1280.5	1291.9	1290.7
12.5°	1268.5	1269.1	1266.6	1280.5	1279.3
15°	1247.6	1247.6	1249.5	1265.3	1265.3
17.5°	1222.9	1224.2	1228.0	1248.9	1249.5
20°	1195.1	1198.2	1206.5	1228.0	1231.8
22.5°	1165.3	1169.1	1180.5	1205.8	1211.5
25°	1130.5	1136.8	1152.7	1181.8	1186.9
27.5°	1093.8	1103.3	1122.9	1154.6	1160.9
30°	1055.8	1066.0	1090.6	1124.8	1133.7
32.5°	1014.7	1028.0	1057.7	1093.8	1103.9
35°	972.3	986.8	1021.0	1061.5	1072.3
37.5°	929.9	945.7	984.3	1028.0	1038.7
40°	884.9	903.3	945.7	990.6	1005.2
42.5°	837.4	857.7	904.5	953.9	967.8
45°	790.0	813.4	864.7	915.9	929.9
47.5°	743.8	767.8	823.5	876.7	891.2
50°	693.8	721.6	782.4	834.9	853.3
52.5°	645.0	676.0	740.0	793.1	811.5
55°	595.6	627.9	695.0	748.8	767.8
57.5°	547.5	581.7	652.6	705.8	719.1
60°	496.3	533.6	605.1	658.9	674.1
62.5°	448.2	486.8	558.9	610.8	625.4
65°	398.1	439.3	510.2	560.2	571.0
67.5°	351.3	392.5	464.0	507.0	517.8
70°	300.0	345.6	415.2	452.0	453.2
72.5°	251.3	297.5	365.2	388.7	385.5
75°	201.3	251.9	310.2	314.6	307.6
77.5°	156.3	207.0	246.9	232.9	219.0
80°	113.3	162.7	174.1	152.6	140.5
82.5°	74.7	113.9	105.1	75.3	64.6
85°	39.9	58.2	34.2	13.9	8.2
87.5°	15.2	10.1	3.8	3.2	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)