

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: P475473

Luminaire Tested: **14CZ2-39HE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475473  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39HE-HRP-UNV-L840-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3232.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

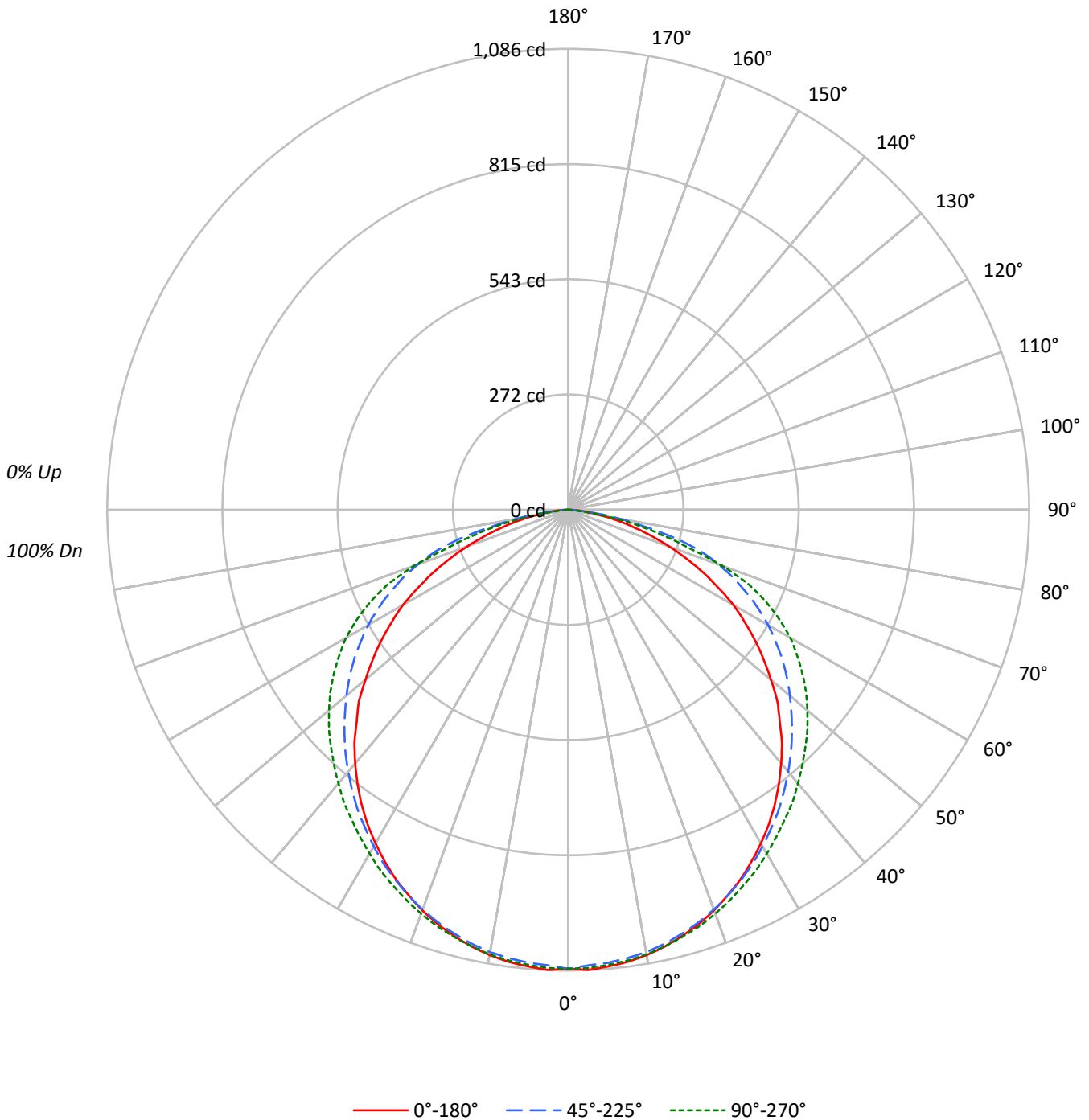
Input Watts (W): 28.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475473

CATALOG NUMBER: 14CZ2-39HE-HRP-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475473

CATALOG NUMBER: 14CZ2-39HE-HRP-UNV-L840-CD1-U

**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	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	2911	2911	2911
5°	2919	2895	2908
10°	2912	2893	2907
15°	2897	2883	2902
20°	2878	2872	2901
25°	2853	2859	2901
30°	2822	2847	2908
35°	2786	2839	2924
40°	2741	2832	2958
45°	2681	2837	3008
50°	2611	2853	3079
55°	2524	2889	3160
60°	2422	2927	3254
65°	2237	2954	3272
70°	1995	2968	3031
75°	1671	2749	2355
80°	1268	1932	1547
85°	892	679	216



TEST NUMBER: P475473

CATALOG NUMBER: 14CZ2-39HE-HRP-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	3.2
10°-20°	293.4	9.1
20°-30°	445.9	13.8
30°-40°	542.9	16.8
40°-50°	576.8	17.8
50°-60°	545.6	16.9
60°-70°	442.1	13.7
70°-80°	242.3	7.5
80°-90°	40.5	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°	841.7	26.0
0°-40°	1384.6	42.8
0°-60°	2507.0	77.6
0°-90°	3232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3232.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1081	1079	1072	1079	1077	103
15°	1040	1038	1035	1043	1042	293
25°	961	961	963	976	977	443
35°	848	851	864	885	890	530
45°	704	716	745	779	790	544
55°	538	562	616	661	674	480
65°	351	391	464	505	514	347
75°	161	222	264	234	226	172
85°	29	38	22	11	7	36
90°	0	0	0	0	0	



TEST NUMBER: P475473

CATALOG NUMBER: 14CZ2-39HE-HRP-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1081.7	1081.7	1081.7	1081.7	1081.7
2.5°	1085.7	1081.7	1074.7	1081.7	1080.7
5°	1080.7	1078.7	1071.8	1078.7	1076.7
7.5°	1074.7	1072.8	1065.8	1073.8	1071.8
10°	1065.8	1063.8	1058.8	1065.8	1063.8
12.5°	1053.8	1052.8	1047.8	1055.8	1053.8
15°	1039.8	1037.8	1034.8	1042.8	1041.8
17.5°	1023.9	1021.9	1019.9	1029.8	1028.8
20°	1004.9	1003.9	1002.9	1013.9	1012.9
22.5°	982.9	982.9	983.9	995.9	995.9
25°	961.0	961.0	963.0	976.0	977.0
27.5°	935.0	937.0	941.0	955.0	958.0
30°	908.1	910.1	916.1	932.0	936.0
32.5°	879.2	882.2	890.1	909.1	913.1
35°	848.2	851.2	864.2	885.1	890.1
37.5°	815.3	820.3	835.2	859.2	868.2
40°	780.4	788.3	806.3	832.3	842.2
42.5°	745.4	752.4	776.4	806.3	816.3
45°	704.5	715.5	745.4	779.4	790.3
47.5°	668.6	678.6	713.5	751.4	764.4
50°	623.7	638.7	681.6	723.5	735.5
52.5°	580.8	600.7	649.6	692.5	706.5
55°	537.9	561.8	615.7	660.6	673.6
57.5°	493.0	518.9	579.8	625.7	639.7
60°	450.1	478.0	543.9	590.8	604.7
62.5°	399.2	434.1	504.9	549.8	561.8
65°	351.3	391.2	464.0	504.9	513.9
67.5°	302.4	349.3	422.1	458.0	461.0
70°	253.5	306.4	377.2	399.2	385.2
72.5°	205.6	264.4	329.3	311.3	295.4
75°	160.7	221.5	264.4	233.5	226.5
77.5°	118.8	181.6	184.6	169.6	164.7
80°	81.8	140.7	124.7	107.8	99.8
82.5°	52.9	86.8	68.9	50.9	45.9
85°	28.9	37.9	22.0	11.0	7.0
87.5°	11.0	7.0	3.0	3.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)