

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: P475175

Luminaire Tested: **22CZ2-34HE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475175  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-34HE-HRP-UNV-L840-CD1-U  
Description: 2'X2' 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: 2827.9 lumens  
Efficiency: N/A  
Efficacy: 116.4 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

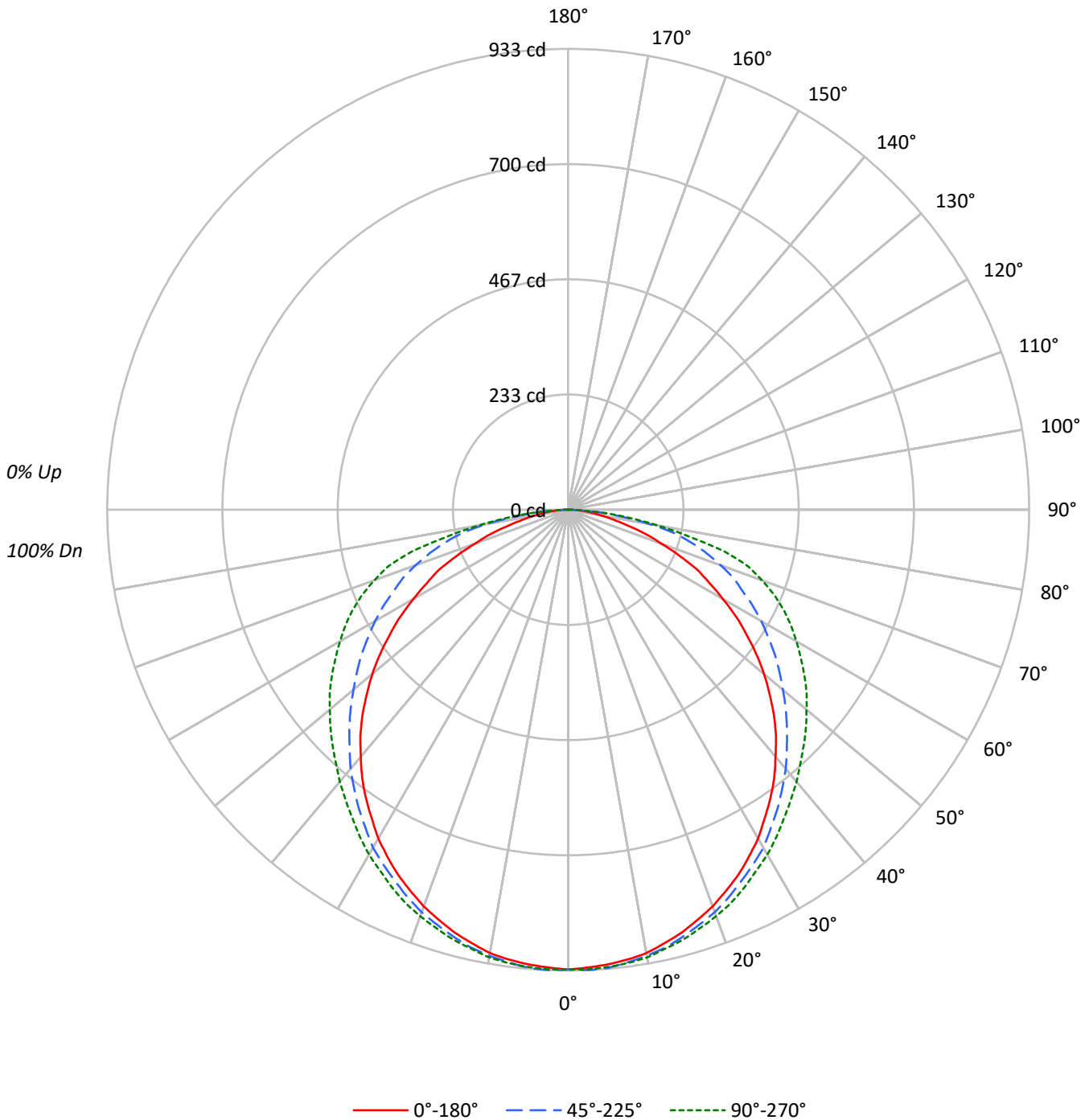
Input Watts (W): 24.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475175

CATALOG NUMBER: 22CZ2-34HE-HRP-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475175

CATALOG NUMBER: 22CZ2-34HE-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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73		80	75	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

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

	0°	45°	90°
0°	2506	2506	2506
5°	2496	2515	2511
10°	2491	2506	2516
15°	2470	2495	2510
20°	2447	2483	2508
25°	2421	2463	2505
30°	2389	2456	2505
35°	2344	2426	2502
40°	2293	2406	2525
45°	2240	2383	2566
50°	2166	2375	2636
55°	2067	2394	2737
60°	1949	2429	2871
65°	1840	2476	3067
70°	1572	2582	3284
75°	1317	2691	3412
80°	1080	2599	2847
85°	932	1927	2093



TEST NUMBER: P475175

CATALOG NUMBER: 22CZ2-34HE-HRP-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.3	3.1
10°-20°	252.5	8.9
20°-30°	382.6	13.5
30°-40°	462.0	16.3
40°-50°	485.4	17.2
50°-60°	456.7	16.2
60°-70°	380.8	13.5
70°-80°	252.4	8.9
80°-90°	67.2	2.4
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°	723.3	25.6
0°-40°	1185.3	41.9
0°-60°	2127.5	75.2
0°-90°	2827.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2827.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	931	931	931	931	931	
5°	924	926	931	931	929	88
15°	886	890	896	899	901	250
25°	815	821	830	840	844	375
35°	714	721	739	755	762	446
45°	589	598	626	658	674	453
55°	441	460	510	562	583	394
65°	289	314	389	453	482	281
75°	127	177	259	312	328	137
85°	30	46	62	68	68	35
90°	0	0	0	0	0	



TEST NUMBER: P475175

CATALOG NUMBER: 22CZ2-34HE-HRP-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	931.1	931.1	931.1	931.1	931.1
2.5°	927.7	929.4	933.0	933.0	931.1
5°	924.0	925.8	931.1	931.1	929.4
7.5°	918.7	920.6	924.0	927.7	925.8
10°	911.6	913.3	917.0	920.6	920.6
12.5°	899.2	900.9	908.0	909.9	909.9
15°	886.5	890.2	895.5	899.2	900.9
17.5°	870.6	874.1	881.2	888.4	888.4
20°	854.6	858.0	867.0	874.1	875.8
22.5°	834.9	840.2	849.2	858.0	861.6
25°	815.3	820.7	829.5	840.2	843.8
27.5°	792.0	797.3	810.0	822.4	824.1
30°	768.8	774.2	790.3	801.0	806.3
32.5°	740.3	747.4	763.5	779.5	784.9
35°	713.5	720.8	738.6	754.7	761.7
37.5°	685.0	692.1	711.8	731.5	740.3
40°	652.8	661.8	685.0	706.4	718.9
42.5°	622.6	631.6	654.7	683.3	695.7
45°	588.7	597.5	626.2	658.2	674.3
47.5°	552.9	563.7	597.5	636.9	652.8
50°	517.3	529.8	567.3	611.9	629.7
52.5°	479.8	495.9	538.8	587.0	608.3
55°	440.6	460.3	510.2	561.9	583.4
57.5°	403.1	421.1	479.8	535.1	558.3
60°	362.1	385.3	451.3	508.3	533.4
62.5°	322.9	347.9	421.1	481.7	508.3
65°	289.0	313.9	388.9	453.0	481.7
67.5°	244.4	278.3	362.1	422.8	451.3
70°	199.8	246.1	328.2	390.6	417.4
72.5°	165.9	210.5	294.4	356.8	381.8
75°	126.7	176.7	258.8	312.2	328.2
77.5°	94.5	146.2	221.2	248.0	249.8
80°	69.7	112.4	167.7	176.7	183.7
82.5°	48.2	78.5	108.9	119.4	123.1
85°	30.2	46.3	62.4	67.8	67.8
87.5°	16.1	17.8	21.4	21.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)