

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: P475479

Luminaire Tested: **14CZ2-35-HRP-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475479  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-35-HRP-UNV-L850-CD1-U  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

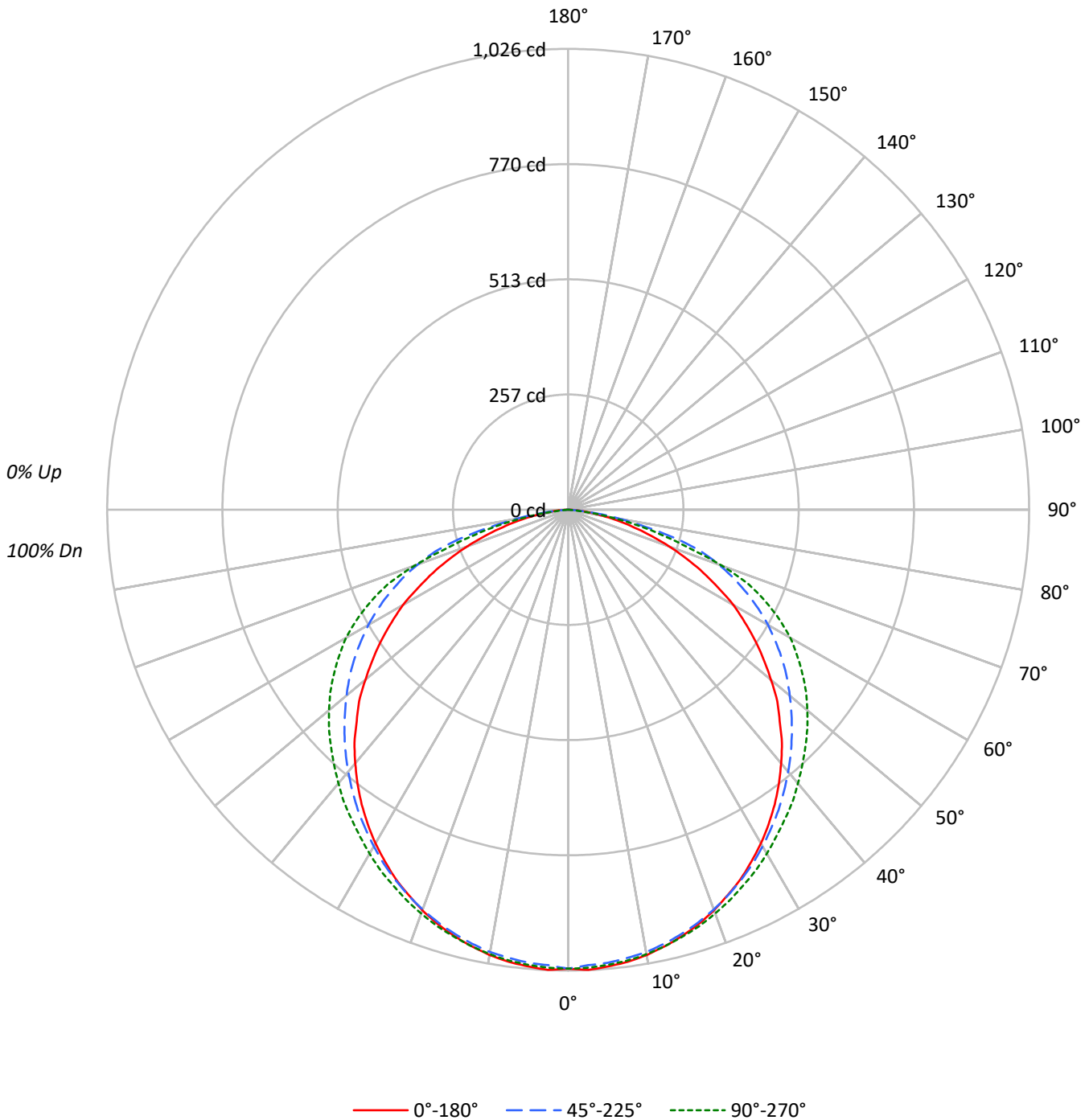
Lumens per Lamp: N/A  
Luminaire Lumens: 3052.9 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.5  
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	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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69				69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58				58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49				49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42				42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37				37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32				32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29				29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26				26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23				23

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

	0°	45°	90°
0°	2750	2750	2750
5°	2757	2735	2747
10°	2751	2733	2746
15°	2736	2723	2742
20°	2718	2713	2740
25°	2695	2701	2740
30°	2665	2689	2747
35°	2632	2682	2762
40°	2589	2675	2795
45°	2533	2680	2841
50°	2466	2695	2908
55°	2384	2729	2985
60°	2288	2765	3074
65°	2113	2791	3091
70°	1884	2803	2862
75°	1578	2597	2225
80°	1198	1826	1461
85°	843	639	204



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.7	3.2
10°-20°	277.1	9.1
20°-30°	421.2	13.8
30°-40°	512.9	16.8
40°-50°	544.8	17.8
50°-60°	515.4	16.9
60°-70°	417.6	13.7
70°-80°	228.9	7.5
80°-90°	38.2	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°	795.1	26.0
0°-40°	1307.9	42.8
0°-60°	2368.1	77.6
0°-90°	3052.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3052.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1022	1022	1022	1022	1022	
5°	1021	1019	1012	1019	1017	97
15°	982	980	978	985	984	277
25°	908	908	910	922	923	418
35°	801	804	816	836	841	501
45°	666	676	704	736	746	514
55°	508	531	582	624	636	454
65°	332	370	438	477	485	328
75°	152	209	250	221	214	162
85°	27	36	21	10	7	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1021.8	1021.8	1021.8	1021.8	1021.8
2.5°	1025.6	1021.8	1015.2	1021.8	1020.8
5°	1020.8	1019.0	1012.4	1019.0	1017.1
7.5°	1015.2	1013.3	1006.7	1014.2	1012.4
10°	1006.7	1004.8	1000.1	1006.7	1004.8
12.5°	995.4	994.5	989.7	997.3	995.4
15°	982.2	980.3	977.5	985.0	984.1
17.5°	967.1	965.2	963.3	972.8	971.8
20°	949.2	948.3	947.3	957.7	956.8
22.5°	928.5	928.5	929.4	940.7	940.7
25°	907.7	907.7	909.6	921.9	922.8
27.5°	883.2	885.1	888.9	902.1	904.9
30°	857.8	859.7	865.3	880.4	884.2
32.5°	830.4	833.3	840.8	858.7	862.5
35°	801.2	804.0	816.3	836.1	840.8
37.5°	770.1	774.8	789.0	811.6	820.1
40°	737.1	744.7	761.6	786.1	795.6
42.5°	704.1	710.7	733.4	761.6	771.1
45°	665.5	675.9	704.1	736.2	746.5
47.5°	631.5	641.0	674.0	709.8	722.0
50°	589.1	603.3	643.8	683.4	694.7
52.5°	548.6	567.5	613.6	654.2	667.4
55°	508.1	530.7	581.6	624.0	636.3
57.5°	465.6	490.2	547.7	591.0	604.2
60°	425.1	451.5	513.7	558.0	571.2
62.5°	377.0	410.0	477.0	519.4	530.7
65°	331.8	369.5	438.3	477.0	485.4
67.5°	285.6	329.9	398.7	432.7	435.5
70°	239.4	289.4	356.3	377.0	363.8
72.5°	194.2	249.8	311.1	294.1	279.0
75°	151.8	209.3	249.8	220.6	214.0
77.5°	112.2	171.6	174.4	160.2	155.5
80°	77.3	132.9	117.8	101.8	94.3
82.5°	50.0	82.0	65.0	48.1	43.4
85°	27.3	35.8	20.7	10.4	6.6
87.5°	10.4	6.6	2.8	2.8	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)