

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: P475169

Luminaire Tested: **22CZ2-32-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475169  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-32-HRP-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

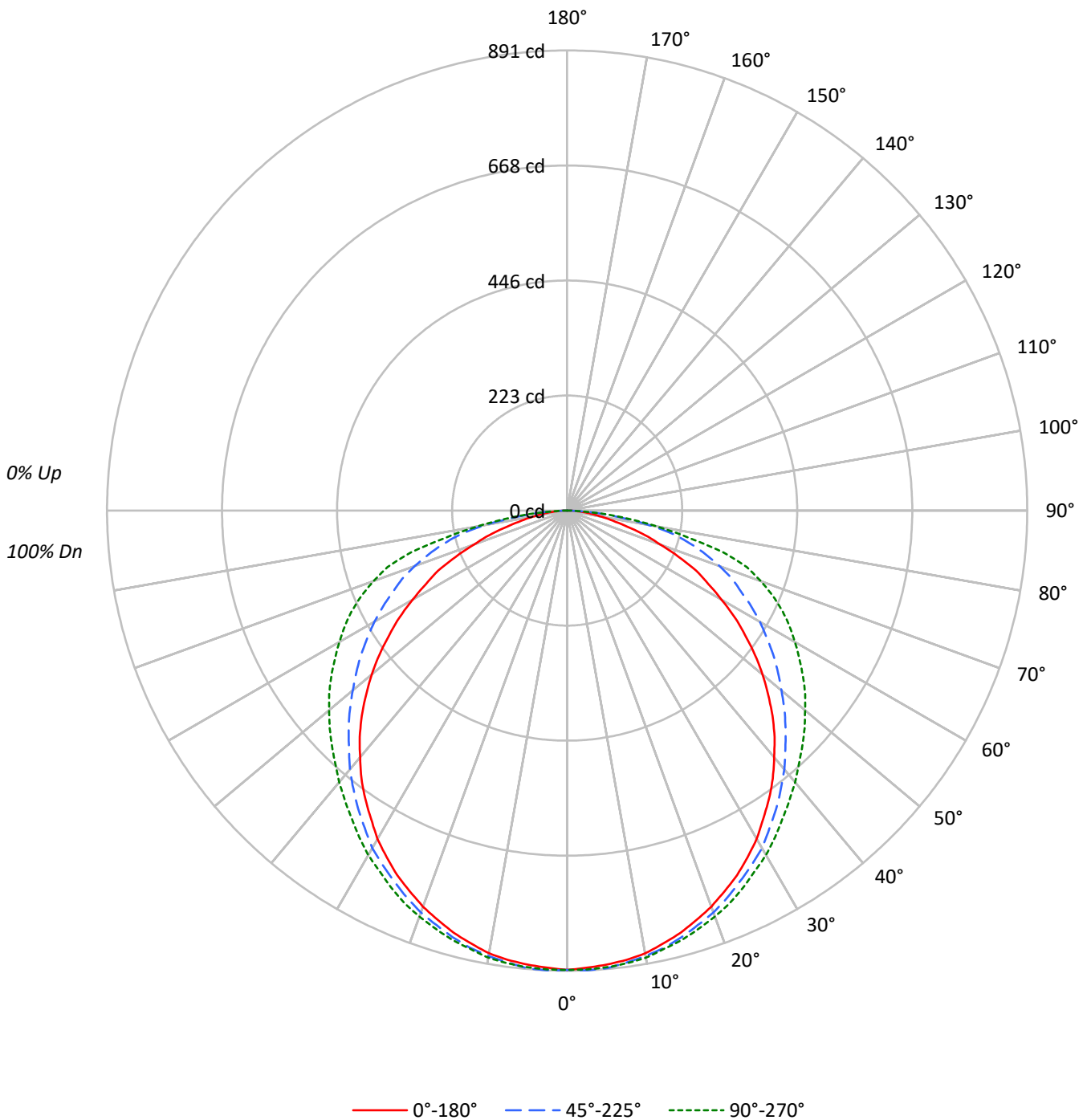
Lumens per Lamp: N/A  
Luminaire Lumens: 2700.8 lumens  
Efficiency: N/A  
Efficacy: 111.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 24.2  
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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82					82			
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36					36			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

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

	0°	45°	90°
0°	2393	2393	2393
5°	2384	2402	2398
10°	2379	2393	2402
15°	2359	2383	2397
20°	2337	2371	2395
25°	2312	2352	2393
30°	2282	2345	2393
35°	2238	2317	2390
40°	2190	2298	2412
45°	2140	2276	2451
50°	2069	2268	2518
55°	1974	2286	2614
60°	1861	2320	2742
65°	1757	2365	2930
70°	1501	2467	3137
75°	1258	2569	3260
80°	1031	2481	2720
85°	892	1840	1998



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.3	3.1
10°-20°	241.1	8.9
20°-30°	365.4	13.5
30°-40°	441.2	16.3
40°-50°	463.6	17.2
50°-60°	436.2	16.2
60°-70°	363.7	13.5
70°-80°	241.0	8.9
80°-90°	64.2	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°	690.8	25.6
0°-40°	1132.0	41.9
0°-60°	2031.9	75.2
0°-90°	2700.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2700.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	889	889	889	889	889	
5°	882	884	889	889	888	84
15°	847	850	855	859	860	239
25°	779	784	792	802	806	358
35°	681	688	705	721	728	426
45°	562	571	598	629	644	433
55°	421	440	487	537	557	376
65°	276	300	371	433	460	269
75°	121	169	247	298	314	131
85°	29	44	60	65	65	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	889.3	889.3	889.3	889.3	889.3
2.5°	886.0	887.6	891.1	891.1	889.3
5°	882.5	884.2	889.3	889.3	887.6
7.5°	877.4	879.2	882.5	886.0	884.2
10°	870.6	872.3	875.7	879.2	879.2
12.5°	858.7	860.4	867.2	869.0	869.0
15°	846.7	850.2	855.3	858.7	860.4
17.5°	831.5	834.8	841.6	848.5	848.5
20°	816.1	819.4	828.0	834.8	836.5
22.5°	797.3	802.4	811.0	819.4	822.9
25°	778.7	783.8	792.2	802.4	805.9
27.5°	756.4	761.5	773.6	785.4	787.1
30°	734.3	739.4	754.7	765.0	770.1
32.5°	707.0	713.8	729.1	744.5	749.6
35°	681.4	688.4	705.4	720.7	727.5
37.5°	654.2	661.0	679.8	698.6	707.0
40°	623.5	632.1	654.2	674.7	686.6
42.5°	594.6	603.2	625.3	652.6	664.4
45°	562.3	570.7	598.1	628.6	644.0
47.5°	528.1	538.3	570.7	608.3	623.5
50°	494.1	506.0	541.8	584.4	601.4
52.5°	458.3	473.6	514.5	560.6	580.9
55°	420.8	439.6	487.3	536.7	557.1
57.5°	385.0	402.1	458.3	511.1	533.2
60°	345.8	368.0	431.0	485.5	509.4
62.5°	308.4	332.3	402.1	460.1	485.5
65°	276.0	299.8	371.4	432.7	460.1
67.5°	233.4	265.8	345.8	403.8	431.0
70°	190.8	235.1	313.5	373.1	398.7
72.5°	158.5	201.1	281.1	340.7	364.7
75°	121.0	168.7	247.1	298.1	313.5
77.5°	90.3	139.7	211.3	236.9	238.5
80°	66.5	107.3	160.1	168.7	175.5
82.5°	46.1	74.9	104.0	114.1	117.5
85°	28.9	44.2	59.6	64.7	64.7
87.5°	15.4	17.0	20.5	20.5	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)