

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: P475111

Luminaire Tested: **22CZ2-32-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475111
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-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

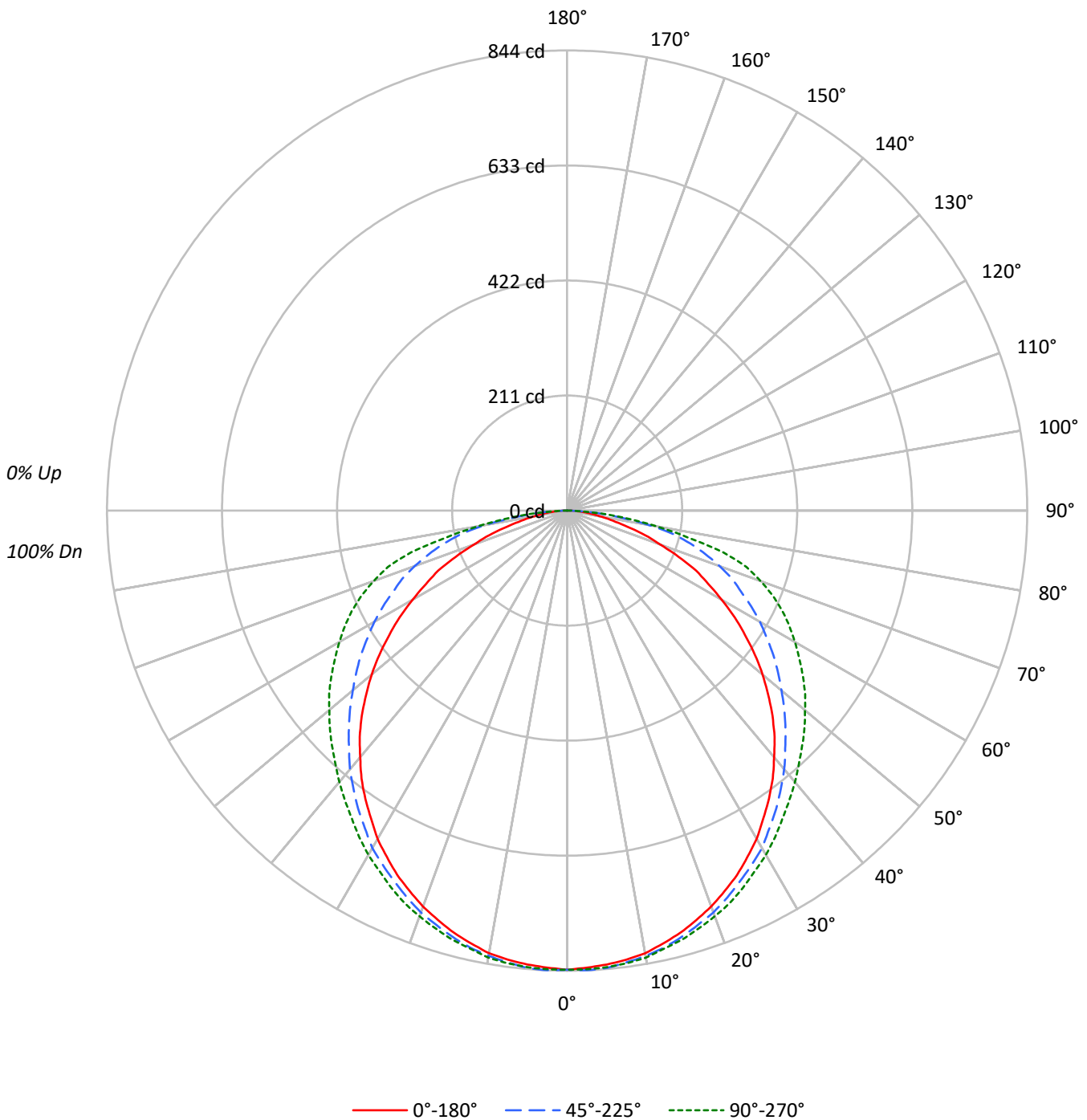
Lumens per Lamp: N/A
Luminaire Lumens: 2557.7 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	2266	2266	2266
5°	2257	2275	2271
10°	2253	2266	2275
15°	2234	2256	2270
20°	2213	2246	2268
25°	2189	2227	2266
30°	2161	2221	2266
35°	2120	2194	2263
40°	2074	2176	2284
45°	2026	2156	2321
50°	1959	2148	2384
55°	1870	2165	2475
60°	1763	2197	2596
65°	1664	2239	2774
70°	1422	2336	2970
75°	1192	2433	3087
80°	976	2349	2576
85°	846	1741	1893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	3.1
10°-20°	228.3	8.9
20°-30°	346.0	13.5
30°-40°	417.8	16.3
40°-50°	439.1	17.2
50°-60°	413.1	16.2
60°-70°	344.4	13.5
70°-80°	228.2	8.9
80°-90°	60.8	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°	654.2	25.6
0°-40°	1072.0	41.9
0°-60°	1924.2	75.2
0°-90°	2557.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2557.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	836	837	842	842	841	79
15°	802	805	810	813	815	226
25°	737	742	750	760	763	339
35°	645	652	668	682	689	404
45°	532	540	566	595	610	410
55°	398	416	462	508	528	357
65°	261	284	352	410	436	254
75°	115	160	234	282	297	124
85°	27	42	56	61	61	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	842.1	842.1	842.1	842.1	842.1
2.5°	839.0	840.6	843.9	843.9	842.1
5°	835.7	837.3	842.1	842.1	840.6
7.5°	830.9	832.6	835.7	839.0	837.3
10°	824.5	826.0	829.3	832.6	832.6
12.5°	813.2	814.8	821.2	822.9	822.9
15°	801.8	805.1	809.9	813.2	814.8
17.5°	787.4	790.6	797.0	803.5	803.5
20°	772.9	776.0	784.2	790.6	792.1
22.5°	755.1	759.9	768.0	776.0	779.3
25°	737.4	742.3	750.2	759.9	763.2
27.5°	716.3	721.2	732.6	743.8	745.4
30°	695.4	700.2	714.7	724.4	729.3
32.5°	669.6	676.0	690.5	705.0	709.9
35°	645.3	651.9	668.0	682.5	688.9
37.5°	619.5	625.9	643.8	661.6	669.6
40°	590.5	598.6	619.5	638.9	650.2
42.5°	563.1	571.2	592.2	618.0	629.2
45°	532.5	540.4	566.4	595.3	609.8
47.5°	500.1	509.8	540.4	576.1	590.5
50°	467.9	479.2	513.1	553.4	569.5
52.5°	434.0	448.5	487.3	530.9	550.1
55°	398.5	416.3	461.5	508.2	527.6
57.5°	364.6	380.8	434.0	484.0	504.9
60°	327.5	348.5	408.2	459.8	482.4
62.5°	292.0	314.7	380.8	435.7	459.8
65°	261.4	283.9	351.7	409.7	435.7
67.5°	221.1	251.7	327.5	382.4	408.2
70°	180.7	222.6	296.9	353.3	377.5
72.5°	150.1	190.4	266.2	322.7	345.3
75°	114.6	159.8	234.0	282.3	296.9
77.5°	85.5	132.3	200.1	224.3	225.9
80°	63.0	101.6	151.6	159.8	166.2
82.5°	43.6	71.0	98.5	108.0	111.3
85°	27.4	41.9	56.4	61.3	61.3
87.5°	14.5	16.1	19.4	19.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)