

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: P294857

Luminaire Tested: **22CZ2-39-HRP-UNV-L940-CD1-U**

Issue Date: 12/2/2019

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P294857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39-HRP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (98) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

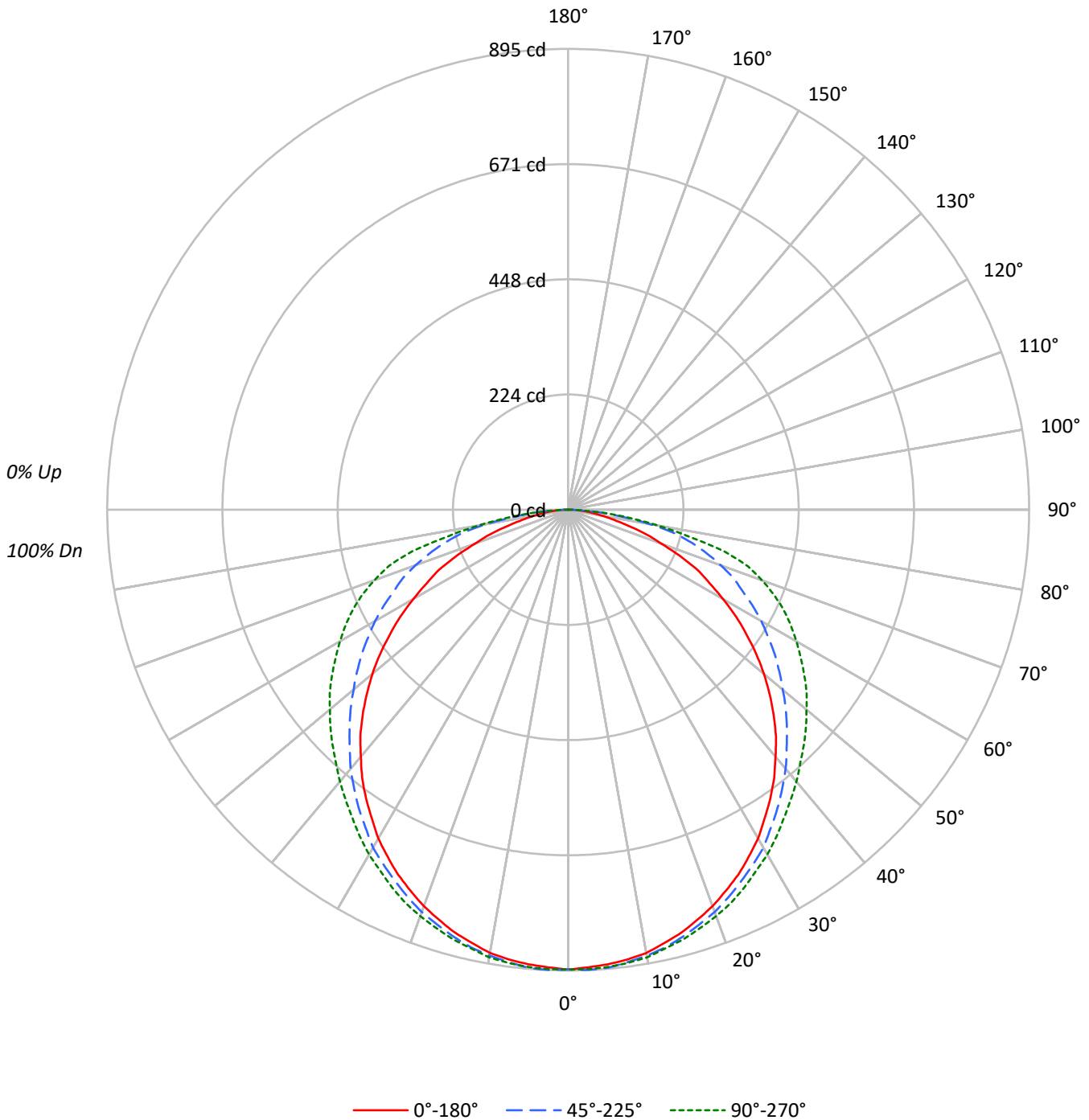
Lumens per Lamp: N/A
Luminaire Lumens: 2711.9 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 34.5
Input Voltage (V): NR
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°	2403	2403	2403
5°	2394	2412	2408
10°	2389	2403	2412
15°	2369	2393	2407
20°	2346	2381	2405
25°	2321	2362	2403
30°	2291	2355	2403
35°	2248	2327	2400
40°	2199	2308	2422
45°	2148	2285	2461
50°	2077	2277	2528
55°	1983	2296	2624
60°	1869	2329	2753
65°	1764	2374	2941
70°	1507	2477	3150
75°	1263	2580	3273
80°	1034	2492	2731
85°	898	1849	2007



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.6	3.1
10°-20°	242.1	8.9
20°-30°	366.9	13.5
30°-40°	443.0	16.3
40°-50°	465.5	17.2
50°-60°	438.0	16.2
60°-70°	365.2	13.5
70°-80°	242.0	8.9
80°-90°	64.5	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°	693.6	25.6
0°-40°	1136.7	41.9
0°-60°	2040.2	75.2
0°-90°	2711.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2711.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	893	893	893	893	893	
5°	886	888	893	893	891	84
15°	850	854	859	862	864	240
25°	782	787	796	806	809	360
35°	684	691	708	724	730	428
45°	564	573	600	631	647	435
55°	423	441	489	539	559	378
65°	277	301	373	434	462	270
75°	122	169	248	299	315	132
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°	893.0	893.0	893.0	893.0	893.0
2.5°	889.6	891.3	894.7	894.7	893.0
5°	886.2	887.9	893.0	893.0	891.3
7.5°	881.0	882.7	886.2	889.6	887.9
10°	874.2	875.9	879.3	882.7	882.7
12.5°	862.2	863.9	870.8	872.5	872.5
15°	850.2	853.7	858.8	862.2	863.9
17.5°	834.8	838.3	845.1	852.0	852.0
20°	819.4	822.9	831.4	838.3	840.0
22.5°	800.6	805.8	814.3	822.9	826.3
25°	781.8	786.9	795.5	805.8	809.2
27.5°	759.6	764.7	776.7	788.7	790.4
30°	737.3	742.5	757.9	768.1	773.3
32.5°	710.0	716.8	732.2	747.6	752.7
35°	684.3	691.1	708.3	723.6	730.5
37.5°	656.9	663.8	682.6	701.4	710.0
40°	626.1	634.7	656.9	677.5	689.4
42.5°	597.1	605.6	627.8	655.2	667.2
45°	564.5	573.1	600.5	631.3	646.7
47.5°	530.3	540.6	573.1	610.7	626.1
50°	496.1	508.1	544.0	586.8	603.9
52.5°	460.2	475.6	516.6	562.8	583.4
55°	422.6	441.4	489.3	538.9	559.4
57.5°	386.6	403.7	460.2	513.2	535.5
60°	347.3	369.5	432.8	487.6	511.5
62.5°	309.6	333.6	403.7	461.9	487.6
65°	277.1	301.1	372.9	434.5	461.9
67.5°	234.4	266.9	347.3	405.4	432.8
70°	191.6	236.1	314.8	374.7	400.3
72.5°	159.1	201.9	282.3	342.1	366.1
75°	121.5	169.4	248.1	299.4	314.8
77.5°	90.7	140.3	212.1	237.8	239.5
80°	66.7	107.8	160.8	169.4	176.2
82.5°	46.2	75.3	104.4	114.6	118.0
85°	29.1	44.5	59.9	65.0	65.0
87.5°	15.4	17.1	20.5	20.5	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)