

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: P294856

Luminaire Tested: **22CZ2-39-HRP-UNV-L935-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: P294856
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-L935-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (98) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2684.2 lumens
Efficiency: N/A
Efficacy: 77.8 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

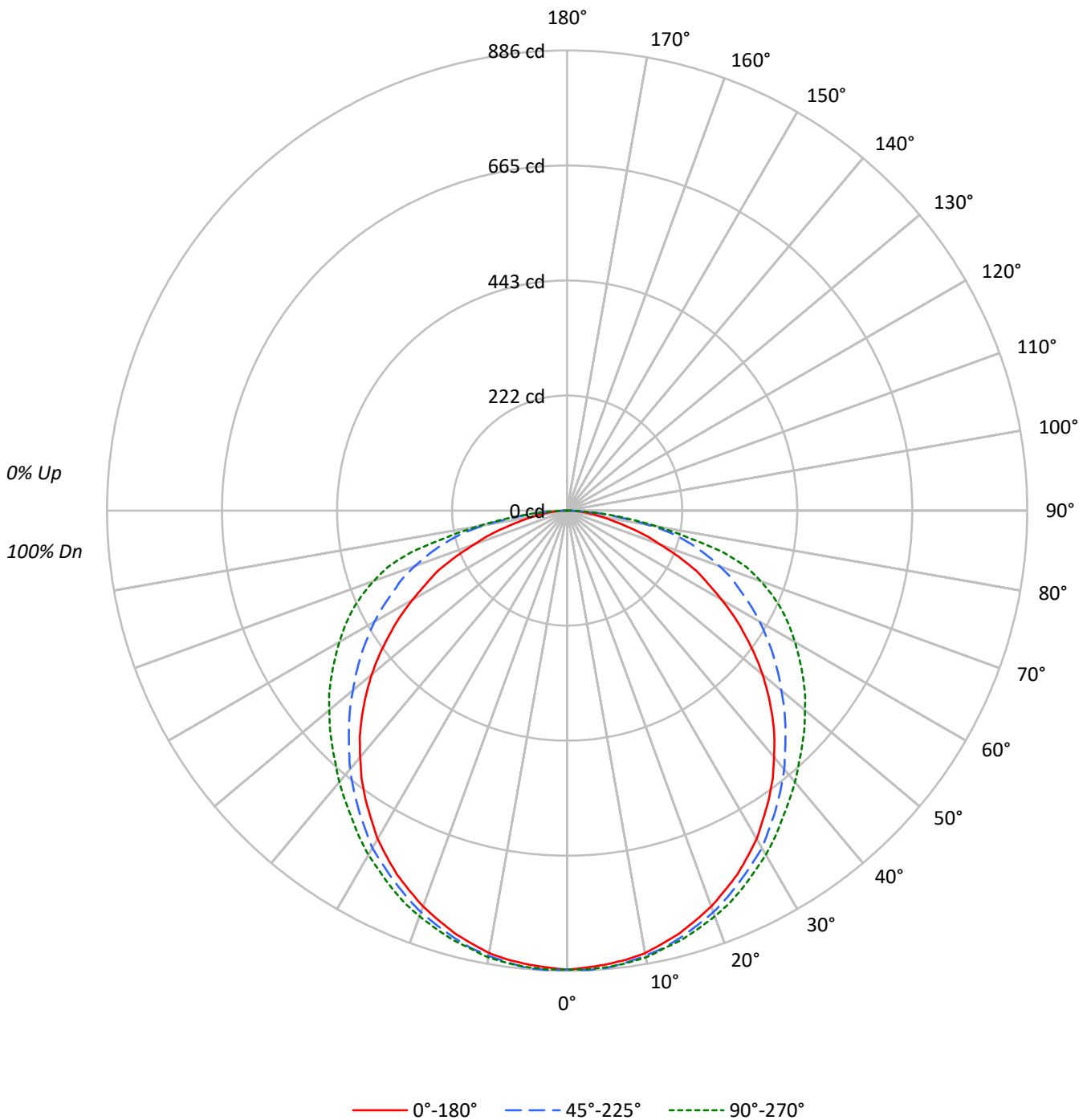
Input Watts (W): 34.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2379	2379	2379
5°	2369	2388	2383
10°	2364	2378	2387
15°	2344	2368	2382
20°	2323	2357	2381
25°	2298	2338	2378
30°	2268	2331	2378
35°	2225	2303	2375
40°	2177	2284	2397
45°	2127	2262	2436
50°	2056	2254	2502
55°	1962	2272	2598
60°	1850	2306	2725
65°	1747	2350	2911
70°	1492	2452	3117
75°	1250	2552	3240
80°	1023	2467	2703
85°	889	1831	1985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.8	3.1
10°-20°	239.6	8.9
20°-30°	363.2	13.5
30°-40°	438.5	16.3
40°-50°	460.8	17.2
50°-60°	433.5	16.2
60°-70°	361.5	13.5
70°-80°	239.5	8.9
80°-90°	63.8	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°	686.5	25.6
0°-40°	1125.0	41.9
0°-60°	2019.4	75.2
0°-90°	2684.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2684.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	884	884	884	884	884	
5°	877	879	884	884	882	83
15°	842	845	850	853	855	237
25°	774	779	787	798	801	356
35°	677	684	701	716	723	423
45°	559	567	594	625	640	430
55°	418	437	484	533	554	374
65°	274	298	369	430	457	267
75°	120	168	246	296	312	130
85°	29	44	59	64	64	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	883.9	883.9	883.9	883.9	883.9
2.5°	880.5	882.2	885.6	885.6	883.9
5°	877.1	878.8	883.9	883.9	882.2
7.5°	872.0	873.7	877.1	880.5	878.8
10°	865.2	866.9	870.3	873.7	873.7
12.5°	853.4	855.1	861.9	863.5	863.5
15°	841.5	844.9	850.0	853.4	855.1
17.5°	826.3	829.7	836.5	843.2	843.2
20°	811.1	814.4	822.9	829.7	831.4
22.5°	792.4	797.5	806.0	814.4	817.8
25°	773.8	778.9	787.4	797.5	800.9
27.5°	751.8	756.9	768.7	780.6	782.3
30°	729.8	734.9	750.1	760.3	765.3
32.5°	702.7	709.5	724.7	739.9	745.0
35°	677.3	684.1	701.0	716.2	723.0
37.5°	650.2	657.0	675.6	694.2	702.7
40°	619.7	628.2	650.2	670.5	682.4
42.5°	590.9	599.4	621.4	648.5	660.4
45°	558.8	567.2	594.3	624.8	640.0
47.5°	524.9	535.1	567.2	604.5	619.7
50°	491.0	502.9	538.4	580.8	597.7
52.5°	455.5	470.7	511.4	557.1	577.4
55°	418.2	436.9	484.3	533.4	553.7
57.5°	382.7	399.6	455.5	508.0	530.0
60°	343.7	365.7	428.4	482.6	506.3
62.5°	306.5	330.2	399.6	457.2	482.6
65°	274.3	298.0	369.1	430.1	457.2
67.5°	232.0	264.1	343.7	401.3	428.4
70°	189.6	233.7	311.6	370.8	396.2
72.5°	157.5	199.8	279.4	338.6	362.4
75°	120.2	167.6	245.5	296.3	311.6
77.5°	89.7	138.8	210.0	235.4	237.1
80°	66.0	106.7	159.2	167.6	174.4
82.5°	45.7	74.5	103.3	113.4	116.8
85°	28.8	44.0	59.3	64.3	64.3
87.5°	15.2	16.9	20.3	20.3	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)