

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: P294858

Luminaire Tested: **22CZ2-39-HRP-UNV-L950-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: P294858
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-L950-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (98) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

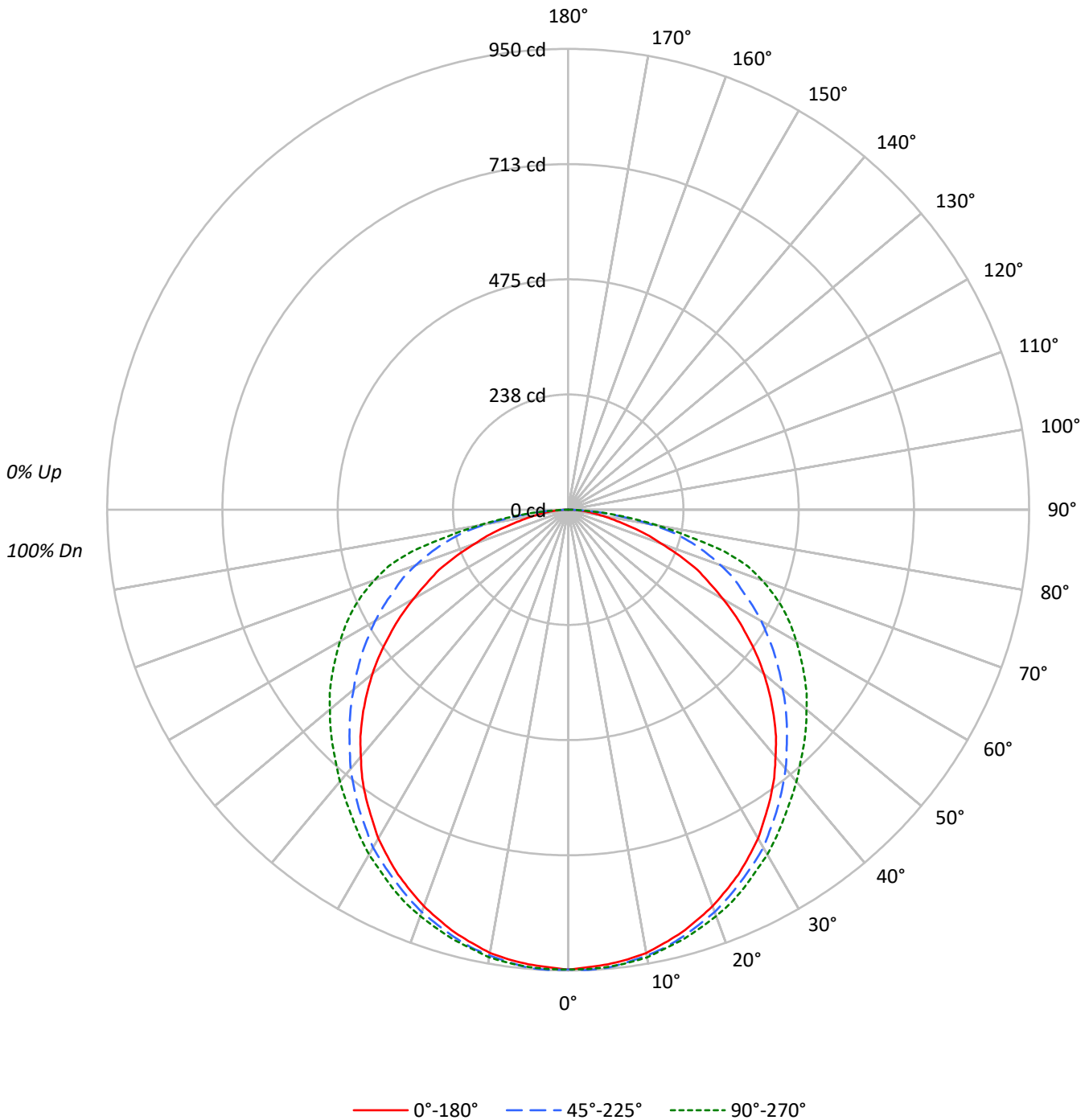
Lumens per Lamp: N/A
Luminaire Lumens: 2878.6 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2551	2551	2551
5°	2541	2561	2556
10°	2535	2550	2560
15°	2514	2540	2555
20°	2491	2527	2553
25°	2464	2507	2550
30°	2432	2499	2550
35°	2386	2470	2547
40°	2335	2449	2571
45°	2280	2426	2612
50°	2205	2417	2683
55°	2104	2436	2786
60°	1984	2472	2922
65°	1873	2521	3122
70°	1600	2629	3343
75°	1340	2738	3474
80°	1097	2645	2898
85°	954	1964	2130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.8	3.1
10°-20°	257.0	8.9
20°-30°	389.4	13.5
30°-40°	470.3	16.3
40°-50°	494.1	17.2
50°-60°	464.9	16.2
60°-70°	387.7	13.5
70°-80°	256.9	8.9
80°-90°	68.5	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°	736.3	25.6
0°-40°	1206.5	41.9
0°-60°	2165.6	75.2
0°-90°	2878.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2878.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	941	942	948	948	946	89
15°	902	906	912	915	917	254
25°	830	835	844	855	859	382
35°	726	734	752	768	775	454
45°	599	608	637	670	686	462
55°	448	468	519	572	594	401
65°	294	320	396	461	490	286
75°	129	180	263	318	334	140
85°	31	47	64	69	69	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	947.9	947.9	947.9	947.9	947.9
2.5°	944.2	946.1	949.7	949.7	947.9
5°	940.6	942.4	947.9	947.9	946.1
7.5°	935.2	937.0	940.6	944.2	942.4
10°	927.9	929.7	933.3	937.0	937.0
12.5°	915.2	917.0	924.3	926.1	926.1
15°	902.5	906.1	911.6	915.2	917.0
17.5°	886.1	889.8	897.0	904.3	904.3
20°	869.8	873.4	882.5	889.8	891.6
22.5°	849.8	855.3	864.3	873.4	877.1
25°	829.8	835.3	844.4	855.3	858.9
27.5°	806.2	811.7	824.4	837.1	838.9
30°	782.6	788.1	804.4	815.3	820.8
32.5°	753.6	760.8	777.2	793.5	799.0
35°	726.3	733.6	751.8	768.1	775.4
37.5°	697.3	704.5	724.5	744.5	753.6
40°	664.6	673.7	697.3	719.1	731.8
42.5°	633.7	642.8	666.4	695.5	708.2
45°	599.2	608.3	637.4	670.0	686.4
47.5°	562.9	573.8	608.3	648.3	664.6
50°	526.6	539.3	577.4	622.8	641.0
52.5°	488.5	504.8	548.4	597.4	619.2
55°	448.5	468.5	519.3	572.0	593.8
57.5°	410.4	428.5	488.5	544.8	568.4
60°	368.6	392.2	459.4	517.5	542.9
62.5°	328.7	354.1	428.5	490.3	517.5
65°	294.2	319.6	395.9	461.2	490.3
67.5°	248.8	283.3	368.6	430.4	459.4
70°	203.4	250.6	334.1	397.7	424.9
72.5°	168.9	214.3	299.6	363.2	388.6
75°	128.9	179.8	263.3	317.8	334.1
77.5°	96.2	148.9	225.2	252.4	254.2
80°	70.8	114.4	170.7	179.8	187.0
82.5°	49.0	79.9	110.8	121.7	125.3
85°	30.9	47.2	63.6	69.0	69.0
87.5°	16.3	18.2	21.8	21.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)