

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: P295048

Luminaire Tested: **24CZ2-50-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: P295048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-HRP-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

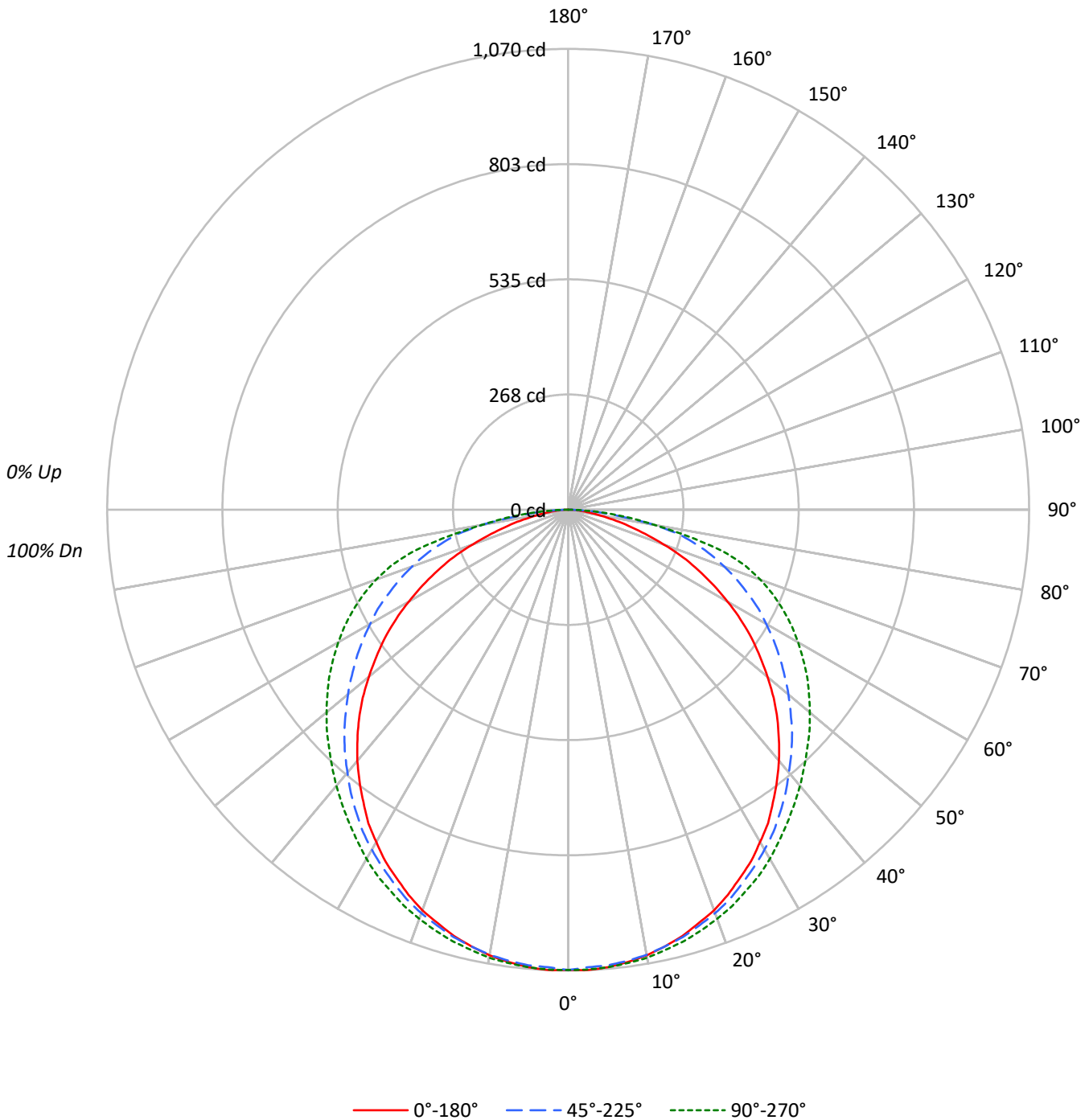
Lumens per Lamp: N/A
Luminaire Lumens: 3293.9 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1438	1438	1438
5°	1440	1434	1440
10°	1436	1434	1443
15°	1427	1431	1444
20°	1418	1428	1447
25°	1400	1421	1449
30°	1384	1416	1455
35°	1361	1409	1456
40°	1337	1400	1470
45°	1307	1399	1493
50°	1264	1397	1533
55°	1220	1407	1588
60°	1150	1429	1659
65°	1062	1462	1752
70°	928	1513	1866
75°	753	1591	1928
80°	556	1560	1560
85°	426	1150	1298



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	3.1
10°-20°	290.7	8.8
20°-30°	442.6	13.4
30°-40°	537.4	16.3
40°-50°	567.8	17.2
50°-60°	535.8	16.3
60°-70°	445.5	13.5
70°-80°	293.1	8.9
80°-90°	79.9	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°	834.6	25.3
0°-40°	1372.0	41.7
0°-60°	2475.5	75.2
0°-90°	3293.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1069	1069	1069	1069	1069	
5°	1066	1066	1062	1066	1066	101
15°	1025	1026	1027	1037	1037	289
25°	943	949	957	974	976	435
35°	829	838	858	880	887	519
45°	687	700	735	771	785	529
55°	520	542	600	656	677	463
65°	334	372	459	527	550	330
75°	145	211	306	363	371	156
85°	28	61	74	83	84	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1070.1	1068.7	1063.2	1068.7	1068.7
5°	1066.0	1066.0	1061.8	1066.0	1066.0
7.5°	1059.1	1059.1	1056.3	1061.8	1061.8
10°	1050.8	1050.8	1049.4	1056.3	1056.3
12.5°	1038.4	1039.8	1038.4	1046.6	1046.6
15°	1024.6	1026.0	1027.3	1037.0	1037.0
17.5°	1006.7	1009.4	1012.2	1023.2	1024.6
20°	990.1	991.5	997.0	1009.4	1010.8
22.5°	968.0	972.2	979.1	991.5	995.6
25°	943.2	948.7	957.0	973.6	976.3
27.5°	919.8	923.9	934.9	952.9	958.4
30°	890.8	897.7	911.5	929.4	936.3
32.5°	863.2	870.1	886.7	906.0	911.5
35°	828.8	838.4	857.7	879.8	886.7
37.5°	795.7	805.3	828.8	853.6	861.9
40°	761.2	772.2	797.1	826.0	837.0
42.5°	724.0	739.1	766.7	798.4	810.8
45°	686.7	700.5	735.0	770.9	784.6
47.5°	646.7	663.3	700.5	743.3	759.8
50°	604.0	624.7	667.4	714.3	732.2
52.5°	561.2	584.7	633.0	685.4	704.7
55°	519.9	541.9	599.9	656.4	677.1
57.5°	474.4	501.9	565.4	626.1	646.7
60°	427.5	457.8	530.9	594.3	616.4
62.5°	380.6	415.1	497.8	561.2	584.7
65°	333.7	372.3	459.2	526.8	550.2
67.5°	288.2	331.0	423.3	490.9	514.4
70°	235.8	289.6	384.7	450.9	474.4
72.5°	187.5	249.6	347.5	409.6	430.2
75°	144.8	211.0	306.1	362.7	370.9
77.5°	106.2	172.4	263.4	282.7	284.1
80°	71.7	137.9	201.3	198.6	201.3
82.5°	46.9	103.4	126.9	142.0	143.4
85°	27.6	60.7	74.5	82.7	84.1
87.5°	13.8	20.7	26.2	27.6	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)