

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: P295034

Luminaire Tested: **24CZ2-40-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: P295034
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: 24CZ2-40-HRP-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

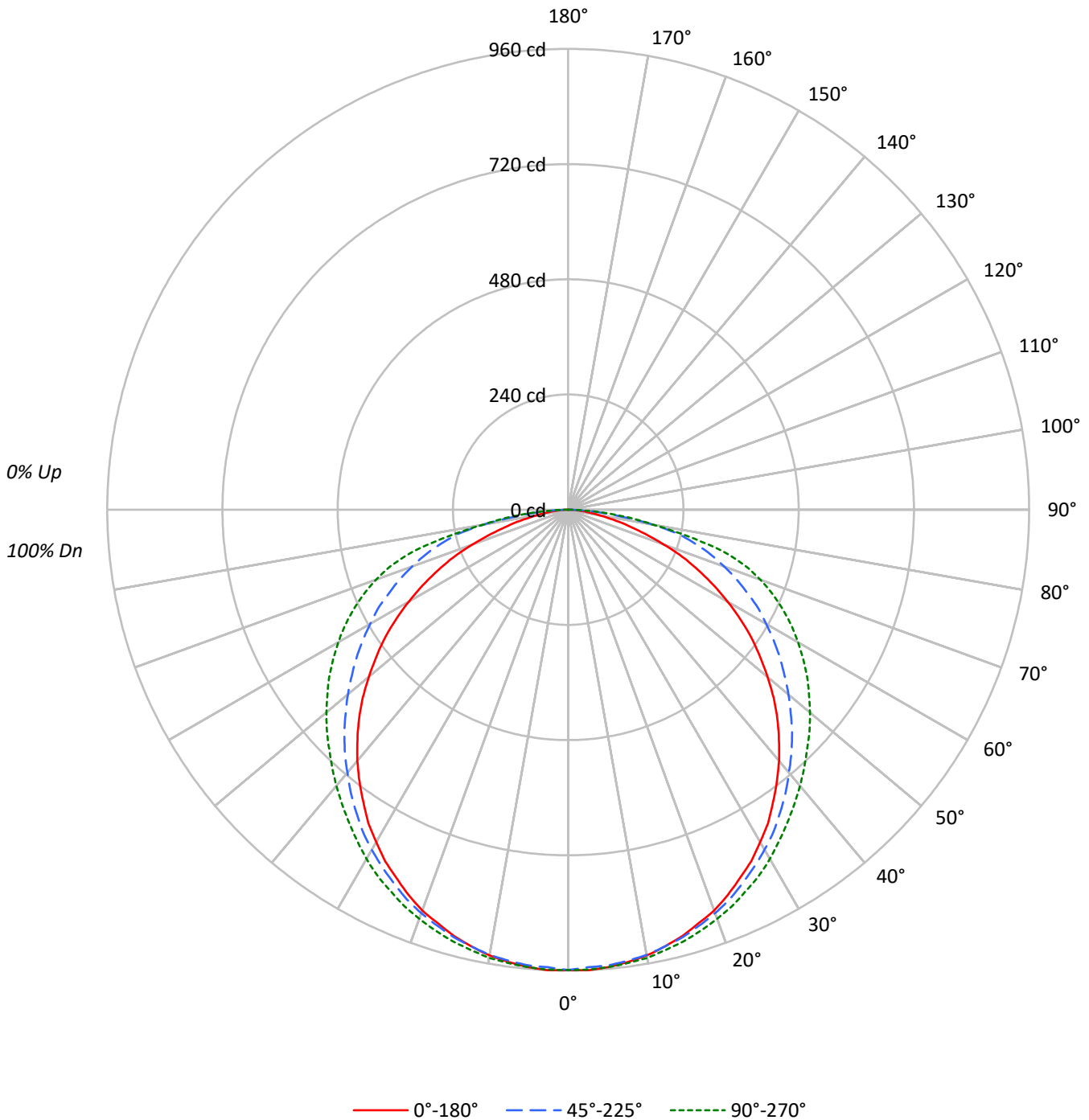
Lumens per Lamp: N/A
Luminaire Lumens: 2955.7 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.2
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°	1290	1290	1290
5°	1292	1287	1292
10°	1288	1287	1295
15°	1281	1284	1296
20°	1272	1281	1299
25°	1257	1275	1301
30°	1242	1271	1305
35°	1222	1264	1307
40°	1200	1256	1319
45°	1173	1255	1340
50°	1135	1254	1375
55°	1094	1263	1425
60°	1032	1282	1488
65°	954	1312	1572
70°	832	1358	1675
75°	675	1428	1731
80°	498	1400	1400
85°	381	1031	1166



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	3.1
10°-20°	260.9	8.8
20°-30°	397.2	13.4
30°-40°	482.2	16.3
40°-50°	509.5	17.2
50°-60°	480.8	16.3
60°-70°	399.7	13.5
70°-80°	263.0	8.9
80°-90°	71.7	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°	748.9	25.3
0°-40°	1231.1	41.7
0°-60°	2221.4	75.2
0°-90°	2955.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2955.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	956	956	953	956	956	91
15°	919	921	922	930	930	259
25°	846	851	859	874	876	390
35°	744	752	770	790	796	466
45°	616	629	660	692	704	475
55°	466	486	538	589	608	416
65°	300	334	412	473	494	296
75°	130	189	275	325	333	140
85°	25	54	67	74	76	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	959.0	959.0	959.0	959.0	959.0
2.5°	960.2	959.0	954.0	959.0	959.0
5°	956.5	956.5	952.8	956.5	956.5
7.5°	950.3	950.3	947.9	952.8	952.8
10°	942.9	942.9	941.7	947.9	947.9
12.5°	931.8	933.0	931.8	939.2	939.2
15°	919.4	920.6	921.9	930.5	930.5
17.5°	903.3	905.8	908.3	918.2	919.4
20°	888.5	889.7	894.6	905.8	907.0
22.5°	868.7	872.4	878.6	889.7	893.4
25°	846.4	851.3	858.8	873.6	876.1
27.5°	825.4	829.1	839.0	855.0	860.0
30°	799.4	805.6	817.9	834.0	840.2
32.5°	774.6	780.8	795.7	813.0	817.9
35°	743.7	752.3	769.7	789.5	795.7
37.5°	714.0	722.6	743.7	766.0	773.4
40°	683.0	692.9	715.2	741.2	751.1
42.5°	649.6	663.3	688.0	716.5	727.6
45°	616.2	628.6	659.5	691.7	704.1
47.5°	580.3	595.2	628.6	667.0	681.8
50°	542.0	560.5	598.9	641.0	657.1
52.5°	503.6	524.7	568.0	615.0	632.3
55°	466.5	486.3	538.3	589.0	607.6
57.5°	425.7	450.4	507.3	561.8	580.3
60°	383.6	410.8	476.4	533.3	553.1
62.5°	341.5	372.5	446.7	503.6	524.7
65°	299.5	334.1	412.1	472.7	493.7
67.5°	258.6	297.0	379.9	440.5	461.6
70°	211.6	259.9	345.2	404.6	425.7
72.5°	168.3	224.0	311.8	367.5	386.1
75°	129.9	189.3	274.7	325.4	332.9
77.5°	95.3	154.7	236.3	253.7	254.9
80°	64.3	123.7	180.7	178.2	180.7
82.5°	42.1	92.8	113.8	127.5	128.7
85°	24.7	54.4	66.8	74.2	75.5
87.5°	12.4	18.6	23.5	24.7	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)