

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: P295025

Luminaire Tested: **24CZ2-35-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: P295025
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: 24CZ2-35-HRP-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

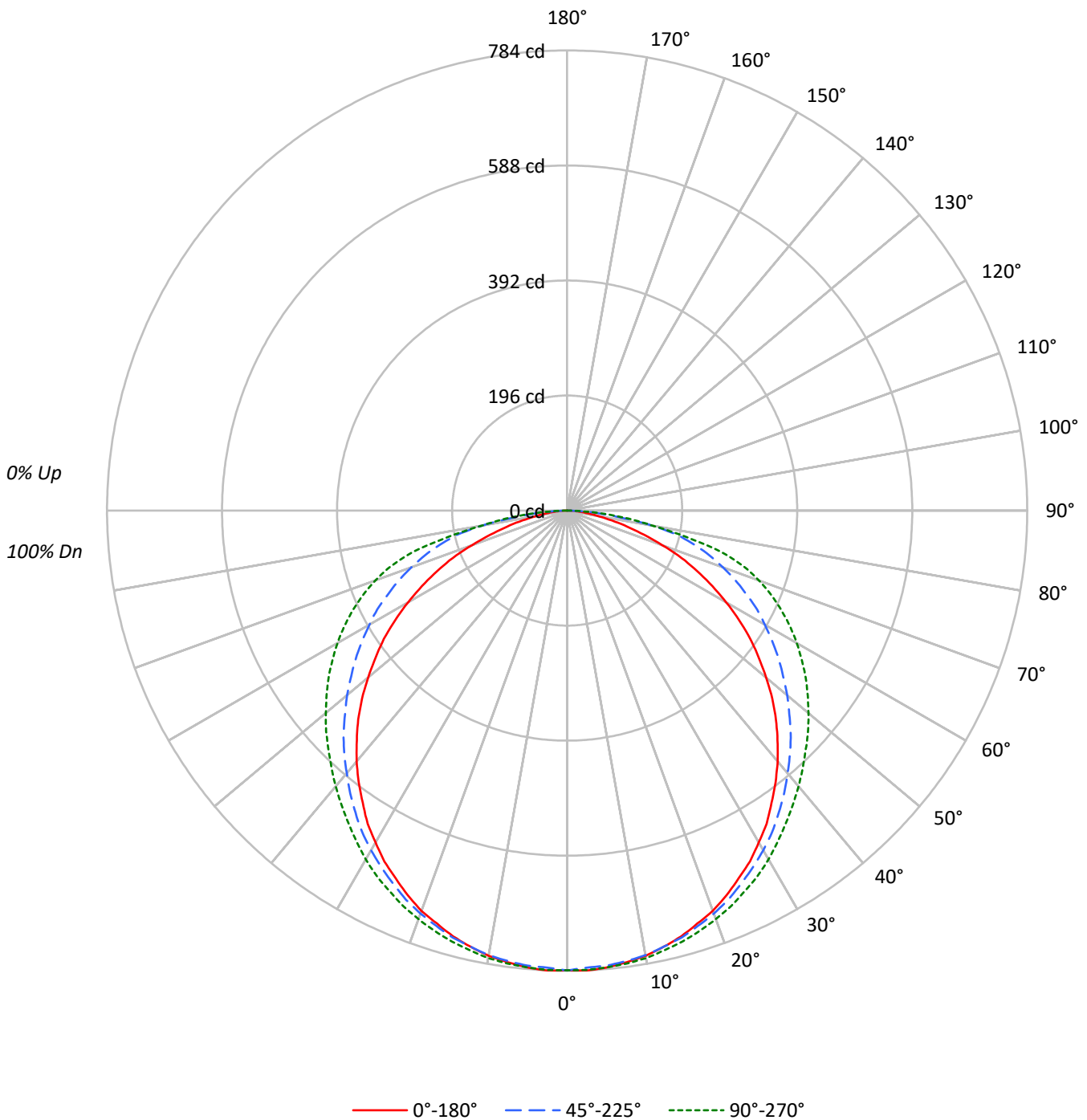
Lumens per Lamp: N/A
Luminaire Lumens: 2414.2 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 30.1
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°	1054	1054	1054
5°	1055	1051	1055
10°	1052	1051	1058
15°	1046	1049	1059
20°	1039	1046	1061
25°	1026	1041	1062
30°	1014	1038	1066
35°	998	1033	1067
40°	980	1026	1078
45°	958	1025	1094
50°	927	1024	1123
55°	894	1031	1164
60°	843	1047	1216
65°	779	1072	1284
70°	680	1109	1368
75°	552	1167	1413
80°	408	1144	1144
85°	312	843	953



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	3.1
10°-20°	213.1	8.8
20°-30°	324.4	13.4
30°-40°	393.9	16.3
40°-50°	416.1	17.2
50°-60°	392.7	16.3
60°-70°	326.5	13.5
70°-80°	214.8	8.9
80°-90°	58.6	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°	611.7	25.3
0°-40°	1005.6	41.7
0°-60°	1814.4	75.2
0°-90°	2414.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2414.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	781	781	778	781	781	74
15°	751	752	753	760	760	212
25°	691	695	701	714	716	319
35°	607	614	629	645	650	380
45°	503	513	539	565	575	388
55°	381	397	440	481	496	339
65°	245	273	337	386	403	242
75°	106	155	224	266	272	114
85°	20	44	55	61	62	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	783.3	783.3	783.3	783.3	783.3
2.5°	784.3	783.3	779.3	783.3	783.3
5°	781.3	781.3	778.2	781.3	781.3
7.5°	776.2	776.2	774.2	778.2	778.2
10°	770.2	770.2	769.1	774.2	774.2
12.5°	761.1	762.1	761.1	767.1	767.1
15°	751.0	752.0	753.0	760.0	760.0
17.5°	737.8	739.8	741.9	749.9	751.0
20°	725.7	726.7	730.7	739.8	740.8
22.5°	709.5	712.5	717.6	726.7	729.7
25°	691.3	695.4	701.4	713.6	715.6
27.5°	674.1	677.2	685.3	698.4	702.4
30°	652.9	658.0	668.1	681.2	686.3
32.5°	632.7	637.8	649.9	664.0	668.1
35°	607.4	614.5	628.7	644.8	649.9
37.5°	583.2	590.3	607.4	625.6	631.7
40°	557.9	566.0	584.2	605.4	613.5
42.5°	530.6	541.7	562.0	585.2	594.3
45°	503.3	513.4	538.7	565.0	575.1
47.5°	474.0	486.1	513.4	544.8	556.9
50°	442.7	457.8	489.2	523.5	536.7
52.5°	411.4	428.5	463.9	502.3	516.5
55°	381.0	397.2	439.7	481.1	496.3
57.5°	347.7	367.9	414.4	458.9	474.0
60°	313.3	335.6	389.1	435.6	451.8
62.5°	279.0	304.2	364.9	411.4	428.5
65°	244.6	272.9	336.6	386.1	403.3
67.5°	211.2	242.6	310.3	359.8	377.0
70°	172.8	212.2	282.0	330.5	347.7
72.5°	137.5	182.9	254.7	300.2	315.3
75°	106.1	154.6	224.4	265.8	271.9
77.5°	77.8	126.3	193.0	207.2	208.2
80°	52.6	101.1	147.6	145.5	147.6
82.5°	34.4	75.8	93.0	104.1	105.1
85°	20.2	44.5	54.6	60.6	61.7
87.5°	10.1	15.2	19.2	20.2	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)