

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: P295017

Luminaire Tested: **24CZ2-30-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: P295017
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: 24CZ2-30-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

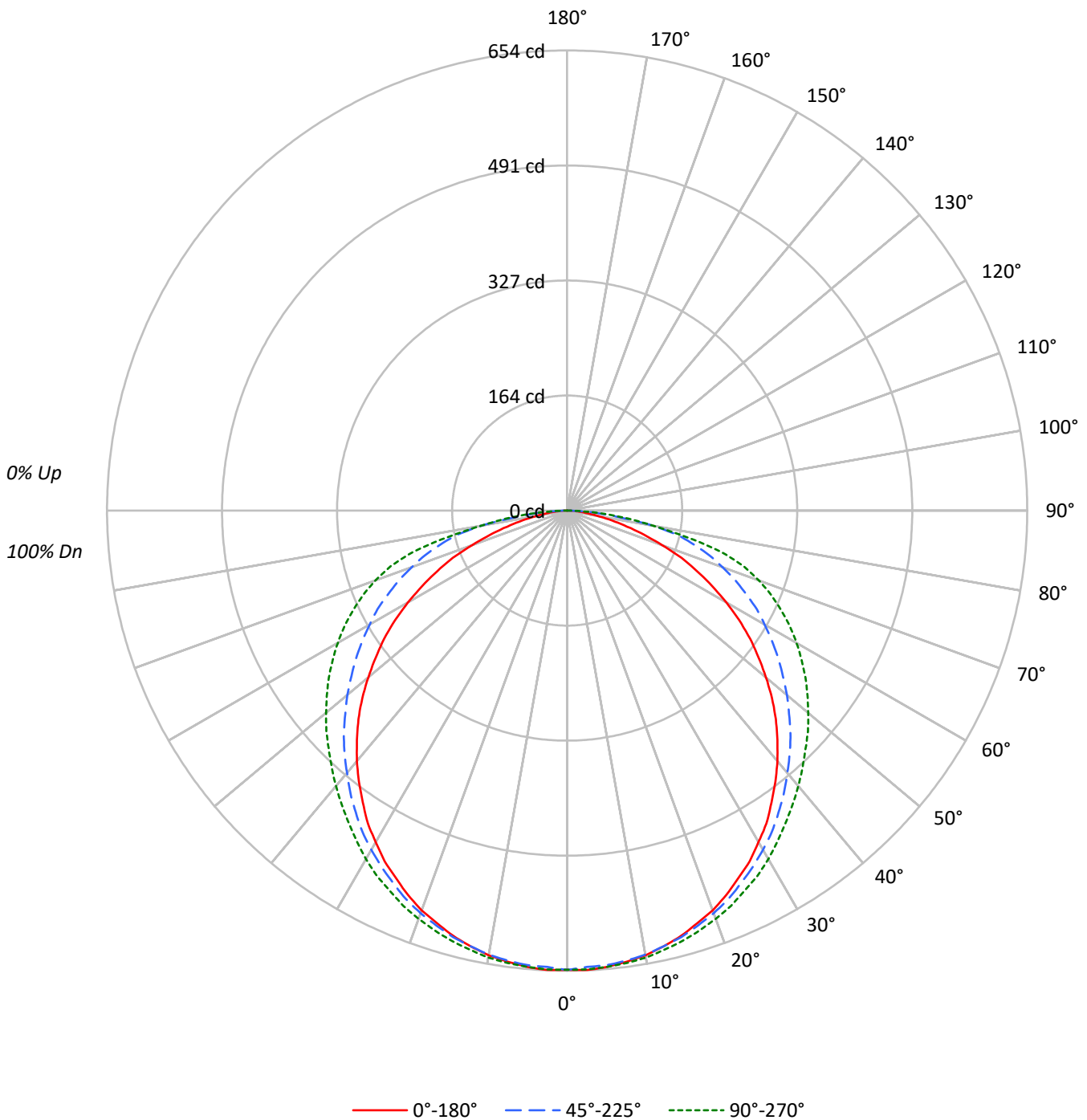
Lumens per Lamp: N/A
Luminaire Lumens: 2011.7 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24.2
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°	878	878	878
5°	879	876	879
10°	877	876	881
15°	872	874	882
20°	866	872	884
25°	855	868	885
30°	845	865	889
35°	831	861	889
40°	817	855	898
45°	798	854	912
50°	772	853	936
55°	745	859	970
60°	703	872	1013
65°	649	893	1070
70°	566	924	1140
75°	460	972	1178
80°	339	953	953
85°	259	702	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	3.1
10°-20°	177.6	8.8
20°-30°	270.3	13.4
30°-40°	328.2	16.3
40°-50°	346.8	17.2
50°-60°	327.2	16.3
60°-70°	272.1	13.5
70°-80°	179.0	8.9
80°-90°	48.8	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°	509.7	25.3
0°-40°	837.9	41.7
0°-60°	1511.9	75.2
0°-90°	2011.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2011.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	651	651	648	651	651	62
15°	626	627	627	633	633	176
25°	576	579	584	595	596	266
35°	506	512	524	537	542	317
45°	419	428	449	471	479	323
55°	318	331	366	401	414	283
65°	204	227	280	322	336	201
75°	88	129	187	222	227	95
85°	17	37	46	50	51	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	652.7	652.7	652.7	652.7	652.7
2.5°	653.6	652.7	649.3	652.7	652.7
5°	651.0	651.0	648.5	651.0	651.0
7.5°	646.8	646.8	645.1	648.5	648.5
10°	641.8	641.8	640.9	645.1	645.1
12.5°	634.2	635.0	634.2	639.2	639.2
15°	625.8	626.6	627.4	633.3	633.3
17.5°	614.8	616.5	618.2	624.9	625.8
20°	604.7	605.5	608.9	616.5	617.3
22.5°	591.2	593.8	598.0	605.5	608.1
25°	576.1	579.4	584.5	594.6	596.3
27.5°	561.8	564.3	571.0	582.0	585.3
30°	544.1	548.3	556.7	567.6	571.9
32.5°	527.2	531.4	541.5	553.3	556.7
35°	506.2	512.1	523.9	537.3	541.5
37.5°	486.0	491.8	506.2	521.3	526.4
40°	464.9	471.6	486.8	504.5	511.2
42.5°	442.2	451.4	468.3	487.6	495.2
45°	419.4	427.8	448.9	470.8	479.2
47.5°	395.0	405.1	427.8	453.9	464.1
50°	368.9	381.5	407.6	436.3	447.2
52.5°	342.8	357.1	386.6	418.6	430.4
55°	317.5	331.0	366.4	400.9	413.5
57.5°	289.7	306.6	345.3	382.4	395.0
60°	261.1	279.6	324.2	363.0	376.5
62.5°	232.4	253.5	304.0	342.8	357.1
65°	203.8	227.4	280.5	321.7	336.0
67.5°	176.0	202.1	258.6	299.8	314.1
70°	144.0	176.9	235.0	275.4	289.7
72.5°	114.5	152.4	212.2	250.1	262.8
75°	88.4	128.9	187.0	221.5	226.6
77.5°	64.8	105.3	160.9	172.7	173.5
80°	43.8	84.2	123.0	121.3	123.0
82.5°	28.6	63.2	77.5	86.7	87.6
85°	16.8	37.1	45.5	50.5	51.4
87.5°	8.4	12.6	16.0	16.8	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)