

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: P274791

Luminaire Tested: **24CZ2-40HE-RDP-UNV-L930-CD1-U**

Issue Date: 3/3/2020

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: P274791
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40HE-RDP-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2236.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

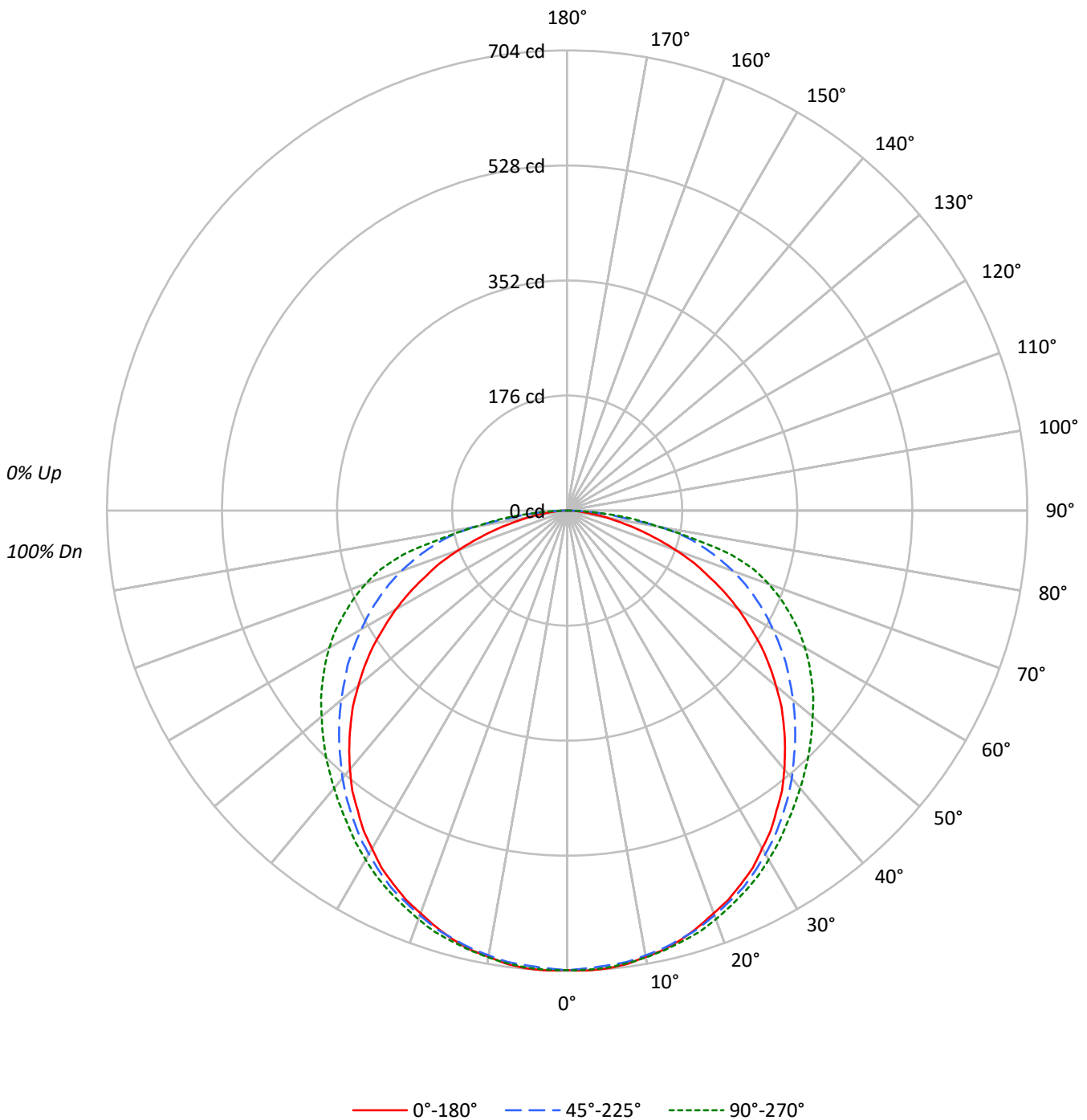
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89		92	89	87		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	946	946	946
5°	950	944	948
10°	947	944	949
15°	946	944	950
20°	939	943	953
25°	935	945	955
30°	927	943	958
35°	918	940	962
40°	908	939	974
45°	893	939	996
50°	873	945	1026
55°	851	960	1072
60°	815	979	1131
65°	763	1013	1201
70°	694	1060	1292
75°	588	1119	1349
80°	464	1126	1092
85°	343	857	959



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	3.0
10°-20°	192.0	8.6
20°-30°	293.6	13.1
30°-40°	358.9	16.0
40°-50°	382.5	17.1
50°-60°	365.7	16.4
60°-70°	309.8	13.9
70°-80°	208.2	9.3
80°-90°	58.7	2.6
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°	552.2	24.7
0°-40°	911.1	40.7
0°-60°	1659.3	74.2
0°-90°	2236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	703	702	699	702	702	67
15°	679	679	678	683	682	191
25°	630	632	637	642	643	290
35°	559	563	572	583	586	350
45°	469	477	494	515	524	362
55°	363	376	409	441	457	323
65°	240	264	318	360	377	238
75°	113	154	215	252	260	121
85°	22	46	56	60	62	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.2	703.2	703.2	703.2	703.2
2.5°	704.3	704.3	700.9	703.2	703.2
5°	703.2	702.0	698.7	702.0	702.0
7.5°	699.8	698.7	696.5	699.8	698.7
10°	693.2	693.2	691.0	694.3	694.3
12.5°	687.6	686.5	685.4	689.8	688.7
15°	678.8	678.8	677.6	683.2	682.1
17.5°	667.7	668.8	669.9	674.3	675.4
20°	655.5	657.7	658.8	665.4	665.4
22.5°	644.4	645.5	647.7	654.4	654.4
25°	630.0	632.2	636.6	642.2	643.3
27.5°	615.5	616.6	622.2	630.0	631.1
30°	596.7	600.0	606.7	615.5	616.6
32.5°	580.1	583.4	591.1	600.0	602.2
35°	559.0	563.4	572.3	583.4	585.6
37.5°	540.1	543.5	554.5	566.7	570.1
40°	516.8	523.5	534.6	549.0	554.5
42.5°	493.5	500.2	513.5	532.4	539.0
45°	469.1	476.9	493.5	514.6	523.5
47.5°	444.7	453.6	472.5	496.9	506.9
50°	417.0	428.1	451.4	479.1	490.2
52.5°	390.4	403.7	429.2	460.3	474.7
55°	362.7	376.0	409.3	441.4	456.9
57.5°	331.6	349.4	386.0	422.6	439.2
60°	302.8	319.4	363.8	403.7	420.3
62.5°	271.7	293.9	341.6	383.7	400.4
65°	239.6	264.0	318.3	360.5	377.1
67.5°	210.7	237.3	295.0	337.2	353.8
70°	176.3	209.6	269.5	311.7	328.3
72.5°	144.2	180.8	242.9	283.9	299.5
75°	113.1	154.2	215.2	251.8	259.5
77.5°	84.3	127.5	186.3	201.9	196.3
80°	59.9	102.0	145.3	137.5	140.9
82.5°	38.8	77.6	89.8	102.0	105.4
85°	22.2	45.5	55.5	59.9	62.1
87.5°	10.0	16.6	22.2	22.2	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)