

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: P274793

Luminaire Tested: **24CZ2-40HE-RDP-UNV-L940-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: P274793
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-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2315.0 lumens
Efficiency: N/A
Efficacy: 75.7 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

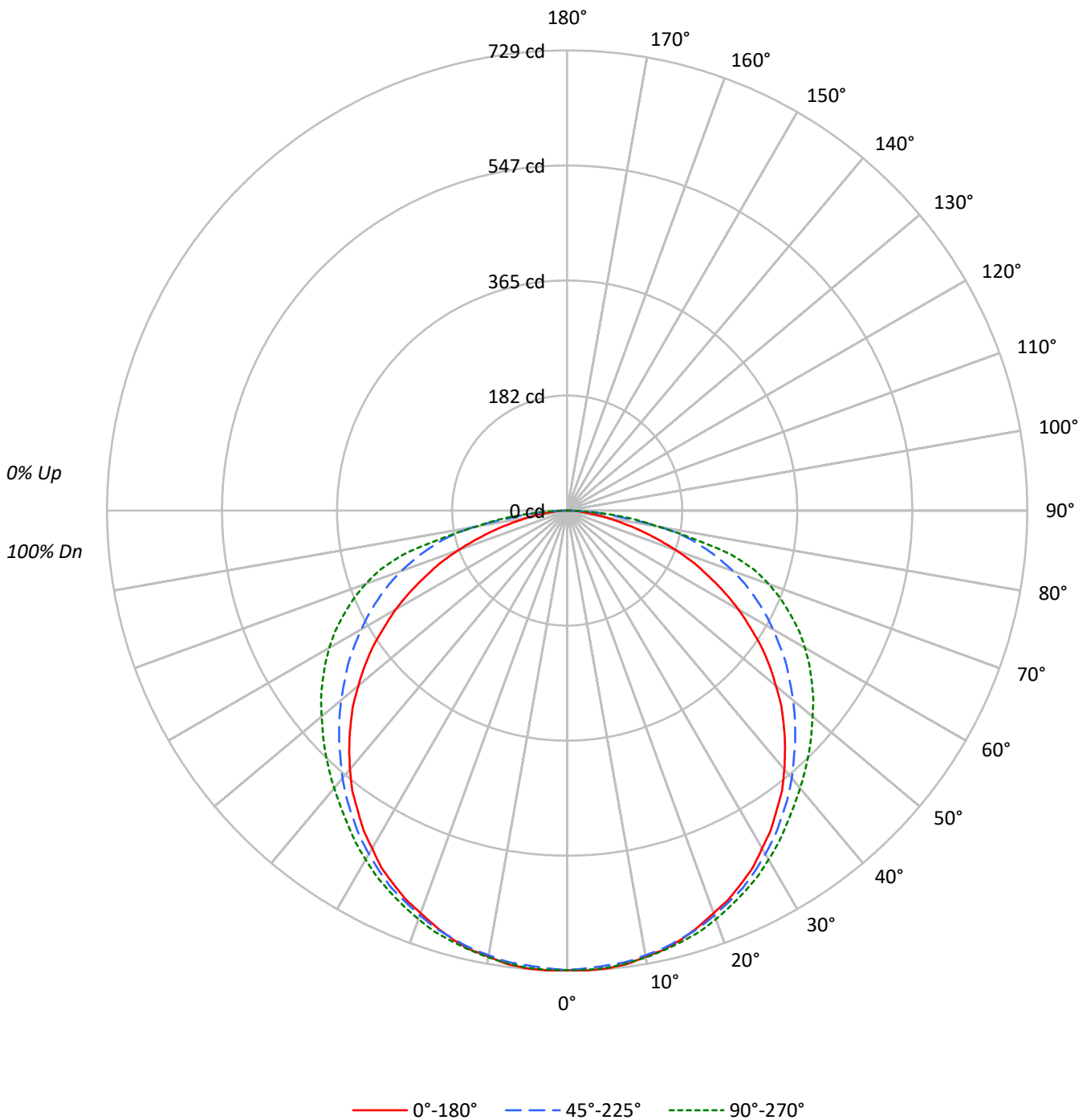
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P274793

CATALOG NUMBER: 24CZ2-40HE-RDP-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P274793

CATALOG NUMBER: 24CZ2-40HE-RDP-UNV-L940-CD1-U

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°	980	980	980
5°	983	977	982
10°	981	977	982
15°	979	977	984
20°	972	977	987
25°	968	978	989
30°	960	976	992
35°	951	973	996
40°	940	972	1008
45°	924	972	1031
50°	904	978	1062
55°	881	994	1110
60°	844	1013	1171
65°	790	1049	1243
70°	718	1098	1337
75°	609	1158	1397
80°	480	1165	1130
85°	355	886	993



TEST NUMBER: P274793

CATALOG NUMBER: 24CZ2-40HE-RDP-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	3.0
10°-20°	198.7	8.6
20°-30°	303.9	13.1
30°-40°	371.5	16.0
40°-50°	396.0	17.1
50°-60°	378.6	16.4
60°-70°	320.7	13.9
70°-80°	215.6	9.3
80°-90°	60.8	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°	571.7	24.7
0°-40°	943.3	40.7
0°-60°	1717.9	74.2
0°-90°	2315.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2315.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	728	727	723	727	727	69
15°	703	703	702	707	706	198
25°	652	654	659	665	666	301
35°	579	583	592	604	606	363
45°	486	494	511	533	542	375
55°	376	389	424	457	473	334
65°	248	273	330	373	390	246
75°	117	160	223	261	269	125
85°	23	47	57	62	64	28
90°	0	0	0	0	0	



TEST NUMBER: P274793

CATALOG NUMBER: 24CZ2-40HE-RDP-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	728.0	728.0	728.0	728.0	728.0
2.5°	729.1	729.1	725.7	728.0	728.0
5°	728.0	726.9	723.4	726.9	726.9
7.5°	724.6	723.4	721.1	724.6	723.4
10°	717.7	717.7	715.4	718.8	718.8
12.5°	711.9	710.8	709.6	714.2	713.1
15°	702.7	702.7	701.6	707.3	706.2
17.5°	691.3	692.4	693.6	698.1	699.3
20°	678.6	680.9	682.1	689.0	689.0
22.5°	667.1	668.3	670.6	677.5	677.5
25°	652.2	654.5	659.1	664.8	666.0
27.5°	637.3	638.4	644.2	652.2	653.4
30°	617.8	621.2	628.1	637.3	638.4
32.5°	600.5	604.0	612.0	621.2	623.5
35°	578.7	583.3	592.5	604.0	606.3
37.5°	559.2	562.7	574.1	586.8	590.2
40°	535.1	542.0	553.5	568.4	574.1
42.5°	511.0	517.9	531.6	551.2	558.1
45°	485.7	493.8	511.0	532.8	542.0
47.5°	460.5	469.6	489.2	514.4	524.8
50°	431.7	443.2	467.3	496.1	507.5
52.5°	404.2	418.0	444.4	476.5	491.5
55°	375.5	389.3	423.7	457.0	473.1
57.5°	343.3	361.7	399.6	437.5	454.7
60°	313.5	330.7	376.6	418.0	435.2
62.5°	281.3	304.3	353.7	397.3	414.5
65°	248.0	273.3	329.6	373.2	390.4
67.5°	218.2	245.7	305.4	349.1	366.3
70°	182.6	217.0	279.0	322.7	339.9
72.5°	149.3	187.2	251.5	294.0	310.0
75°	117.1	159.6	222.8	260.7	268.7
77.5°	87.3	132.1	192.9	209.0	203.2
80°	62.0	105.6	150.4	142.4	145.8
82.5°	40.2	80.4	93.0	105.6	109.1
85°	23.0	47.1	57.4	62.0	64.3
87.5°	10.3	17.2	23.0	23.0	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)