

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: P274807

Luminaire Tested: **24CZ2-50HE-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: P274807
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: 24CZ2-50HE-RDP-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (224) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2786.0 lumens
Efficiency: N/A
Efficacy: 72.2 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

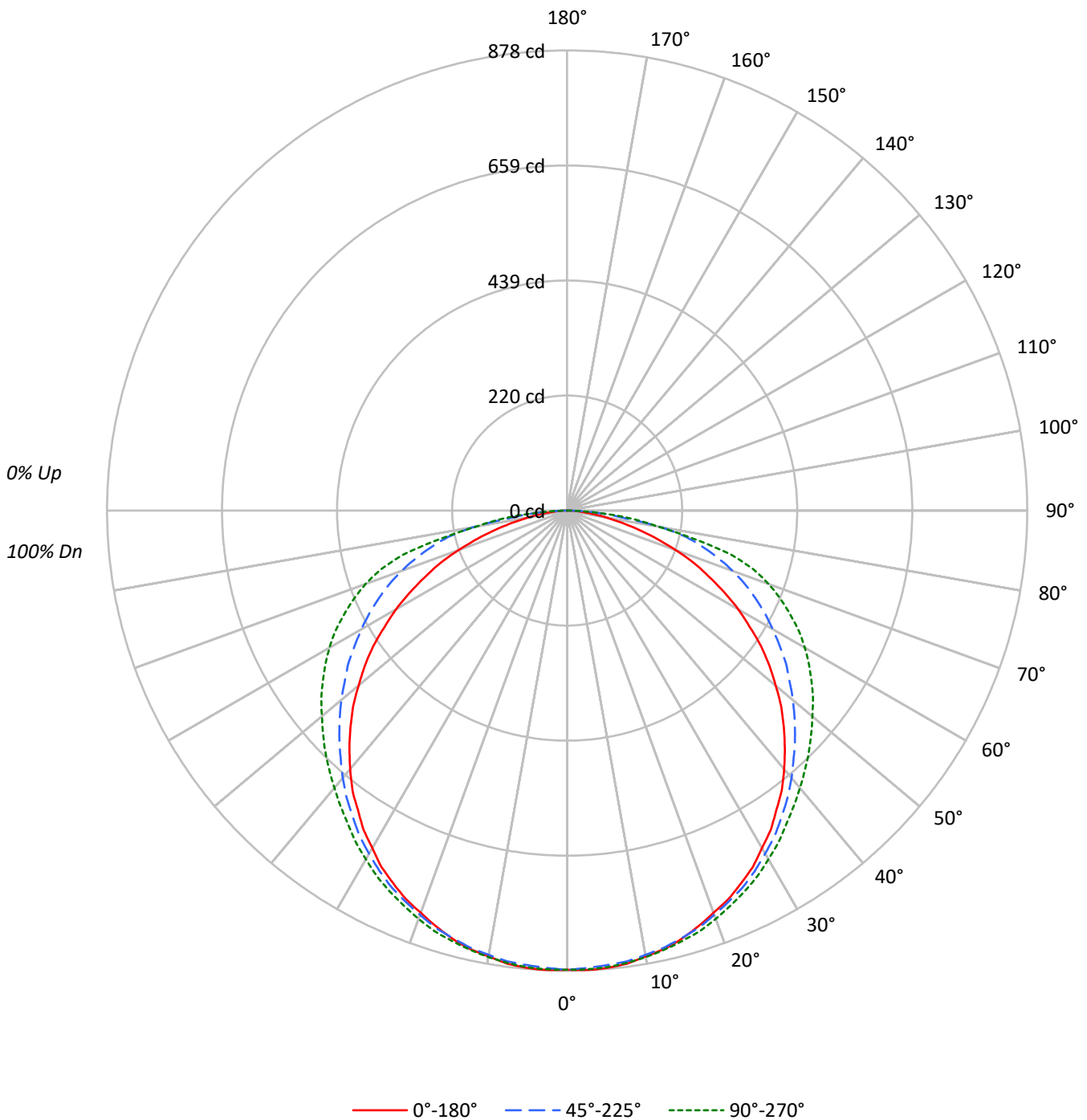
Input Watts (W): 38.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1179	1179	1179
5°	1183	1176	1181
10°	1180	1176	1182
15°	1178	1176	1184
20°	1169	1175	1187
25°	1165	1178	1190
30°	1155	1174	1194
35°	1144	1171	1198
40°	1131	1170	1214
45°	1112	1170	1241
50°	1088	1177	1279
55°	1060	1196	1335
60°	1015	1220	1409
65°	950	1263	1496
70°	864	1321	1609
75°	733	1394	1681
80°	578	1402	1360
85°	426	1067	1195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.1	3.0
10°-20°	239.2	8.6
20°-30°	365.8	13.1
30°-40°	447.1	16.0
40°-50°	476.6	17.1
50°-60°	455.7	16.4
60°-70°	386.0	13.9
70°-80°	259.4	9.3
80°-90°	73.2	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°	688.1	24.7
0°-40°	1135.2	40.7
0°-60°	2067.4	74.2
0°-90°	2786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2786.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	876	876	876	876	876	
5°	876	875	871	875	875	83
15°	846	846	844	851	850	238
25°	785	788	793	800	802	362
35°	696	702	713	727	730	436
45°	584	594	615	641	652	451
55°	452	468	510	550	569	402
65°	298	329	397	449	470	296
75°	141	192	268	314	323	151
85°	28	57	69	75	77	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	876.1	876.1	876.1	876.1	876.1
2.5°	877.5	877.5	873.4	876.1	876.1
5°	876.1	874.7	870.6	874.7	874.7
7.5°	872.0	870.6	867.8	872.0	870.6
10°	863.7	863.7	860.9	865.1	865.1
12.5°	856.8	855.4	854.0	859.5	858.2
15°	845.7	845.7	844.3	851.2	849.9
17.5°	831.9	833.3	834.7	840.2	841.6
20°	816.7	819.5	820.8	829.1	829.1
22.5°	802.9	804.3	807.0	815.3	815.3
25°	784.9	787.7	793.2	800.1	801.5
27.5°	766.9	768.3	775.2	784.9	786.3
30°	743.5	747.6	755.9	766.9	768.3
32.5°	722.7	726.9	736.5	747.6	750.4
35°	696.5	702.0	713.1	726.9	729.6
37.5°	673.0	677.1	690.9	706.1	710.3
40°	644.0	652.3	666.1	684.0	690.9
42.5°	614.9	623.2	639.8	663.3	671.6
45°	584.5	594.2	614.9	641.2	652.3
47.5°	554.1	565.2	588.7	619.1	631.5
50°	519.6	533.4	562.4	597.0	610.8
52.5°	486.4	503.0	534.8	573.5	591.4
55°	451.9	468.5	509.9	550.0	569.3
57.5°	413.2	435.3	480.9	526.5	547.2
60°	377.3	398.0	453.3	503.0	523.7
62.5°	338.6	366.2	425.6	478.1	498.9
65°	298.5	328.9	396.6	449.1	469.8
67.5°	262.6	295.7	367.6	420.1	440.8
70°	219.7	261.2	335.8	388.3	409.0
72.5°	179.6	225.2	302.6	353.8	373.1
75°	141.0	192.1	268.1	313.7	323.4
77.5°	105.0	158.9	232.2	251.5	244.6
80°	74.6	127.1	181.0	171.4	175.5
82.5°	48.4	96.7	111.9	127.1	131.3
85°	27.6	56.7	69.1	74.6	77.4
87.5°	12.4	20.7	27.6	27.6	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)