

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: P272142

Luminaire Tested: **24CZ2-40HE-S-UNV-L935-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: P272142
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40HE-S-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3580.0 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

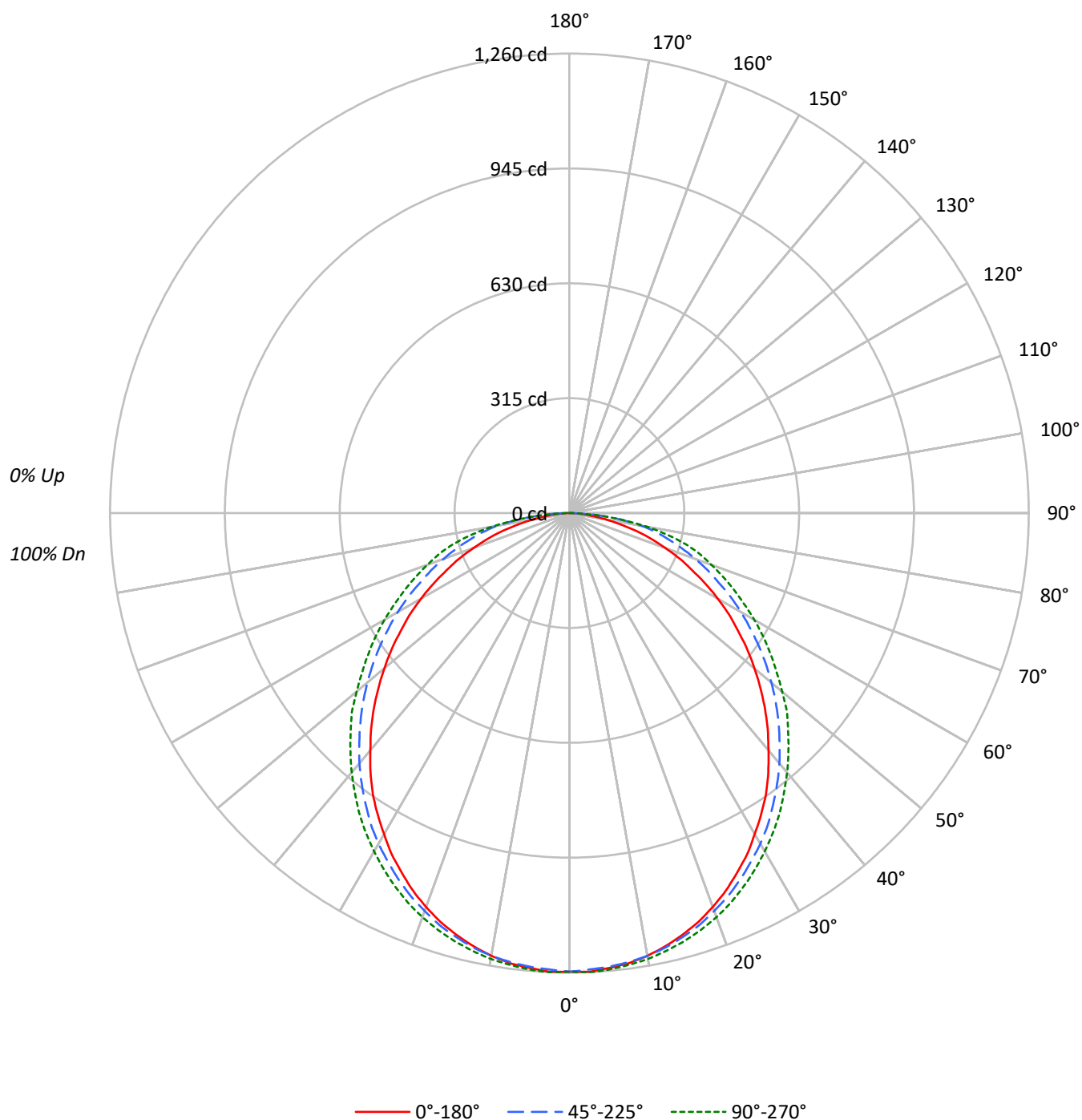
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83		
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69		
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58		
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37		
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33		
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1692	1692	1692
5°	1691	1686	1697
10°	1684	1684	1697
15°	1668	1676	1693
20°	1646	1662	1688
25°	1616	1646	1678
30°	1579	1627	1664
35°	1545	1601	1651
40°	1492	1574	1632
45°	1443	1543	1614
50°	1388	1514	1595
55°	1326	1486	1579
60°	1264	1463	1576
65°	1184	1437	1586
70°	1096	1445	1628
75°	981	1472	1720
80°	793	1560	1683
85°	597	1369	1334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	3.3
10°-20°	340.2	9.5
20°-30°	511.4	14.3
30°-40°	609.2	17.0
40°-50°	623.5	17.4
50°-60°	561.3	15.7
60°-70°	440.8	12.3
70°-80°	286.1	8.0
80°-90°	88.5	2.5
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°	970.7	27.1
0°-40°	1579.9	44.1
0°-60°	2764.6	77.2
0°-90°	3580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1258	1258	1258	1258	1258	
5°	1252	1254	1249	1255	1256	119
15°	1197	1201	1203	1213	1216	338
25°	1088	1097	1109	1127	1130	501
35°	940	952	974	998	1005	587
45°	758	777	811	842	848	585
55°	565	590	633	666	673	507
65°	372	400	451	489	498	370
75°	189	225	283	322	331	200
85°	39	72	89	86	86	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1257.7	1257.7	1257.7	1257.7	1257.7
2.5°	1258.8	1258.8	1253.1	1258.8	1260.0
5°	1252.0	1254.3	1248.6	1255.4	1256.5
7.5°	1245.2	1245.2	1241.8	1248.6	1249.7
10°	1232.7	1233.8	1232.7	1240.6	1241.8
12.5°	1216.7	1219.0	1220.2	1228.1	1229.2
15°	1197.4	1200.8	1203.1	1213.3	1215.6
17.5°	1175.8	1179.2	1184.9	1196.3	1198.5
20°	1149.6	1154.2	1161.0	1175.8	1179.2
22.5°	1121.2	1125.8	1137.1	1150.8	1156.5
25°	1088.2	1097.3	1108.7	1126.9	1130.3
27.5°	1055.3	1063.2	1078.0	1097.3	1101.9
30°	1016.6	1029.1	1047.3	1066.6	1071.2
32.5°	979.1	991.6	1013.2	1033.7	1039.3
35°	940.4	951.8	974.5	998.4	1005.2
37.5°	896.1	910.8	935.9	959.7	966.6
40°	849.4	867.6	896.1	921.1	929.0
42.5°	805.1	824.4	852.9	880.1	889.2
45°	758.5	776.7	810.8	841.5	848.3
47.5°	710.7	731.2	767.6	798.3	809.6
50°	663.0	684.6	723.2	755.1	761.9
52.5°	615.2	637.9	678.9	713.0	716.4
55°	565.2	590.2	633.4	666.4	673.2
57.5°	519.7	541.3	587.9	622.0	630.0
60°	469.6	493.5	543.6	575.4	585.6
62.5°	421.9	446.9	499.2	531.0	540.1
65°	371.8	400.3	451.4	489.0	498.1
67.5°	328.6	355.9	410.5	446.9	456.0
70°	278.6	309.3	367.3	404.8	413.9
72.5°	235.4	267.2	325.2	361.6	375.3
75°	188.8	225.2	283.1	321.8	330.9
77.5°	143.3	185.4	244.5	274.1	274.1
80°	102.3	146.7	201.3	214.9	217.2
82.5°	67.1	110.3	149.0	147.8	147.8
85°	38.7	71.6	88.7	86.4	86.4
87.5°	14.8	29.6	31.8	31.8	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)