

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: P272085

Luminaire Tested: **24CZ2-50HE-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: P272085
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50HE-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 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: 4143.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

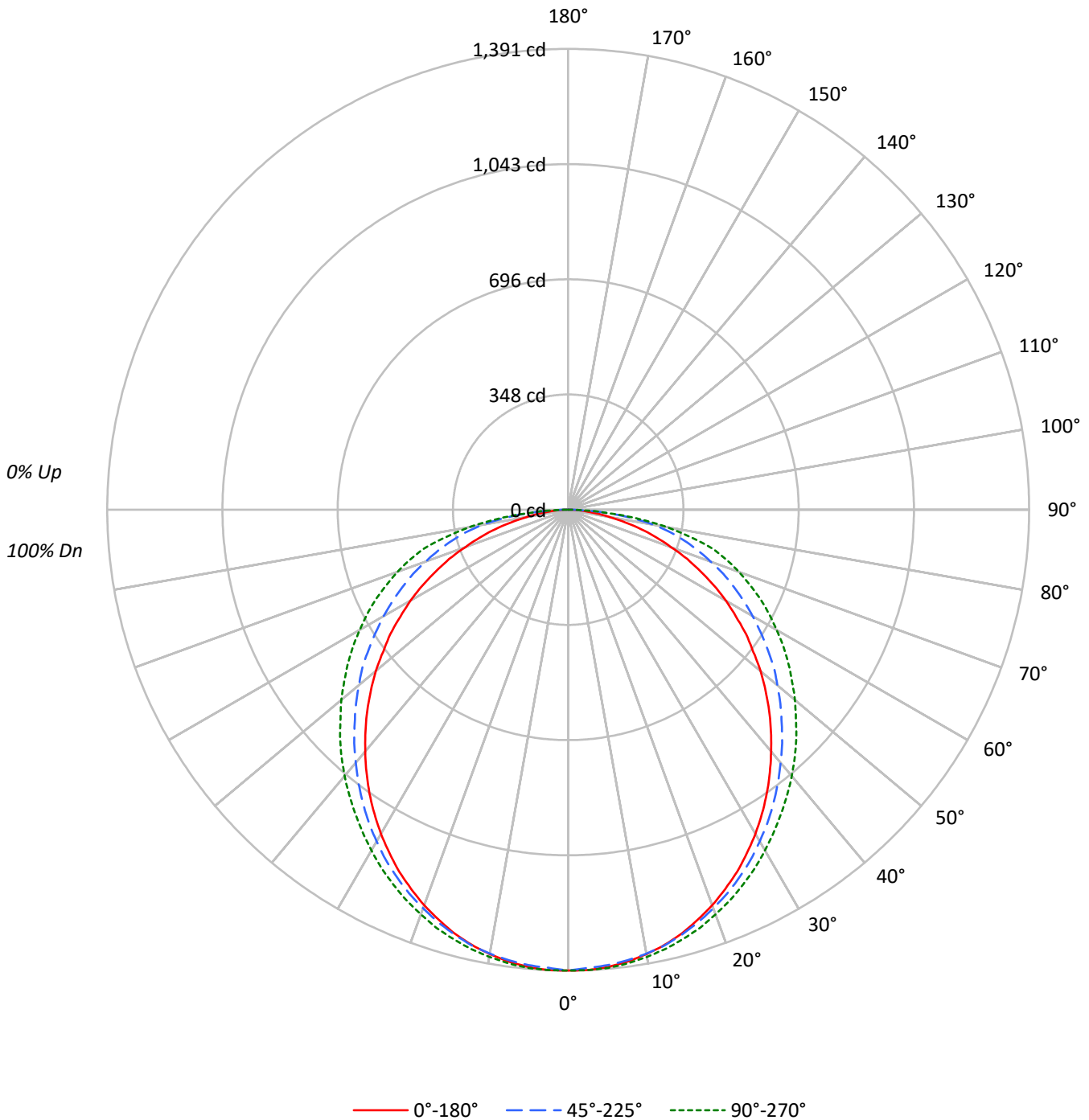
Input Watts (W): 38.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	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	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1872	1872	1872
5°	1871	1864	1875
10°	1861	1859	1872
15°	1845	1849	1868
20°	1819	1833	1861
25°	1790	1817	1854
30°	1755	1796	1845
35°	1717	1774	1840
40°	1673	1751	1843
45°	1631	1734	1852
50°	1586	1725	1870
55°	1537	1722	1904
60°	1477	1730	1953
65°	1400	1756	2038
70°	1300	1801	2154
75°	1186	1891	2336
80°	975	2035	2335
85°	747	1879	2007



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.6	3.2
10°-20°	375.6	9.1
20°-30°	565.2	13.6
30°-40°	677.3	16.3
40°-50°	705.8	17.0
50°-60°	656.7	15.9
60°-70°	540.9	13.1
70°-80°	368.3	8.9
80°-90°	121.6	2.9
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°	1072.3	25.9
0°-40°	1749.6	42.2
0°-60°	3112.2	75.1
0°-90°	4143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4143.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1386	1386	1380	1387	1388	131
15°	1325	1326	1327	1340	1341	373
25°	1206	1211	1224	1244	1249	555
35°	1045	1058	1080	1109	1120	653
45°	857	875	911	957	973	661
55°	655	678	734	792	812	584
65°	440	477	552	617	640	436
75°	228	279	364	429	449	241
85°	48	94	122	130	130	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1391.0	1391.0	1391.0	1391.0	1391.0
2.5°	1391.0	1391.0	1384.1	1391.0	1391.0
5°	1385.5	1385.5	1379.9	1386.8	1388.2
7.5°	1375.8	1377.2	1371.6	1379.9	1381.3
10°	1362.0	1363.3	1360.6	1368.9	1370.3
12.5°	1345.4	1346.8	1346.8	1356.4	1357.8
15°	1324.6	1326.0	1327.4	1339.8	1341.2
17.5°	1298.4	1302.5	1305.3	1320.5	1323.2
20°	1270.7	1274.9	1280.4	1297.0	1299.7
22.5°	1238.9	1244.4	1254.1	1272.1	1276.2
25°	1205.7	1211.2	1223.7	1244.4	1248.6
27.5°	1168.4	1176.7	1191.9	1214.0	1219.5
30°	1129.7	1138.0	1155.9	1179.4	1187.7
32.5°	1088.2	1099.2	1120.0	1146.3	1154.6
35°	1045.3	1057.8	1079.9	1108.9	1120.0
37.5°	999.7	1013.5	1039.8	1071.6	1085.4
40°	952.7	969.3	996.9	1034.3	1049.5
42.5°	905.7	920.9	955.4	995.5	1012.1
45°	857.3	875.3	911.2	956.8	973.4
47.5°	807.5	825.5	868.3	916.7	931.9
50°	757.7	775.7	824.1	875.3	893.2
52.5°	703.8	727.3	782.6	833.8	851.7
55°	655.4	677.5	734.2	792.3	811.6
57.5°	600.1	626.4	688.6	749.4	770.2
60°	548.9	576.6	643.0	705.2	725.9
62.5°	496.4	526.8	597.3	660.9	684.4
65°	439.7	477.0	551.7	616.7	640.2
67.5°	388.5	427.3	506.1	572.4	593.2
70°	330.5	377.5	457.7	524.0	547.5
72.5°	280.7	327.7	412.0	477.0	500.5
75°	228.1	279.3	363.7	428.6	449.4
77.5°	175.6	232.3	316.6	366.4	373.3
80°	125.8	185.3	262.7	291.8	301.4
82.5°	88.5	142.4	193.6	212.9	218.5
85°	48.4	94.0	121.7	130.0	130.0
87.5°	20.7	40.1	48.4	49.8	51.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)