

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: P272104

Luminaire Tested: **24CZ2-60HE-UNV-L950-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: P272104
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: 24CZ2-60HE-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5450.0 lumens
Efficiency: N/A
Efficacy: 123.6 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

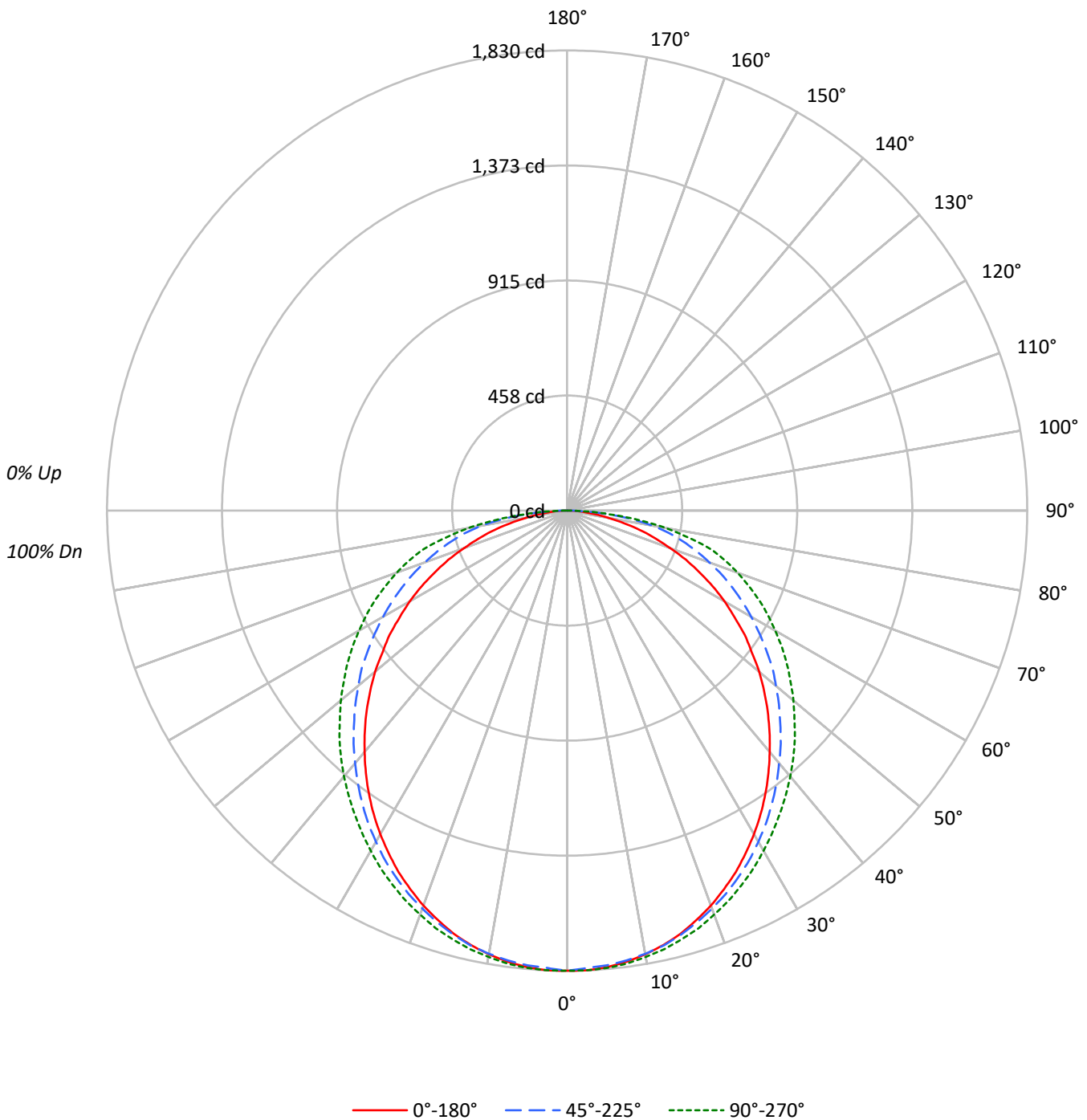
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2462	2462	2462
5°	2462	2452	2467
10°	2448	2445	2463
15°	2427	2432	2458
20°	2393	2412	2448
25°	2355	2390	2438
30°	2309	2362	2427
35°	2259	2333	2420
40°	2201	2303	2425
45°	2146	2281	2437
50°	2087	2269	2460
55°	2023	2266	2505
60°	1943	2276	2570
65°	1841	2310	2681
70°	1710	2369	2834
75°	1560	2487	3073
80°	1282	2678	3072
85°	983	2472	2640



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.1	3.2
10°-20°	494.1	9.1
20°-30°	743.5	13.6
30°-40°	891.0	16.3
40°-50°	928.5	17.0
50°-60°	863.9	15.9
60°-70°	711.5	13.1
70°-80°	484.6	8.9
80°-90°	160.0	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°	1410.6	25.9
0°-40°	2301.6	42.2
0°-60°	4094.0	75.1
0°-90°	5450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5450.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1830	1830	1830	1830	1830	
5°	1822	1822	1815	1824	1826	173
15°	1742	1744	1746	1762	1764	491
25°	1586	1593	1610	1637	1642	730
35°	1375	1392	1421	1459	1473	860
45°	1128	1151	1199	1259	1280	870
55°	862	891	966	1042	1068	769
65°	578	628	726	811	842	574
75°	300	367	478	564	591	316
85°	64	124	160	171	171	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1829.8	1829.8	1829.8	1829.8	1829.8
2.5°	1829.8	1829.8	1820.7	1829.8	1829.8
5°	1822.5	1822.5	1815.3	1824.4	1826.2
7.5°	1809.8	1811.6	1804.4	1815.3	1817.1
10°	1791.6	1793.4	1789.8	1800.7	1802.5
12.5°	1769.8	1771.6	1771.6	1784.3	1786.2
15°	1742.5	1744.3	1746.1	1762.5	1764.3
17.5°	1708.0	1713.4	1717.0	1737.1	1740.7
20°	1671.6	1677.0	1684.3	1706.1	1709.8
22.5°	1629.7	1637.0	1649.7	1673.4	1678.8
25°	1586.1	1593.4	1609.7	1637.0	1642.5
27.5°	1537.0	1547.9	1567.9	1597.0	1604.3
30°	1486.0	1497.0	1520.6	1551.5	1562.4
32.5°	1431.5	1446.0	1473.3	1507.9	1518.8
35°	1375.1	1391.5	1420.6	1458.8	1473.3
37.5°	1315.1	1333.3	1367.8	1409.7	1427.8
40°	1253.2	1275.1	1311.4	1360.5	1380.5
42.5°	1191.4	1211.4	1256.9	1309.6	1331.4
45°	1127.7	1151.4	1198.7	1258.7	1280.5
47.5°	1062.2	1085.9	1142.3	1205.9	1225.9
50°	996.8	1020.4	1084.1	1151.4	1175.0
52.5°	925.8	956.7	1029.5	1096.8	1120.4
55°	862.2	891.3	965.8	1042.2	1067.7
57.5°	789.4	824.0	905.8	985.8	1013.1
60°	722.1	758.5	845.8	927.6	954.9
62.5°	653.0	693.0	785.8	869.4	900.4
65°	578.4	627.5	725.7	811.2	842.2
67.5°	511.1	562.0	665.7	753.0	780.3
70°	434.7	496.6	602.1	689.4	720.3
72.5°	369.2	431.1	542.0	627.5	658.4
75°	300.1	367.4	478.4	563.9	591.1
77.5°	231.0	305.6	416.5	482.0	491.1
80°	165.5	243.7	345.6	383.8	396.5
82.5°	116.4	187.3	254.6	280.1	287.4
85°	63.7	123.7	160.1	171.0	171.0
87.5°	27.3	52.7	63.7	65.5	67.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)