

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: P272173

Luminaire Tested: **24CZ2-60HE-S-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: P272173
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: 24CZ2-60HE-S-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (392) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

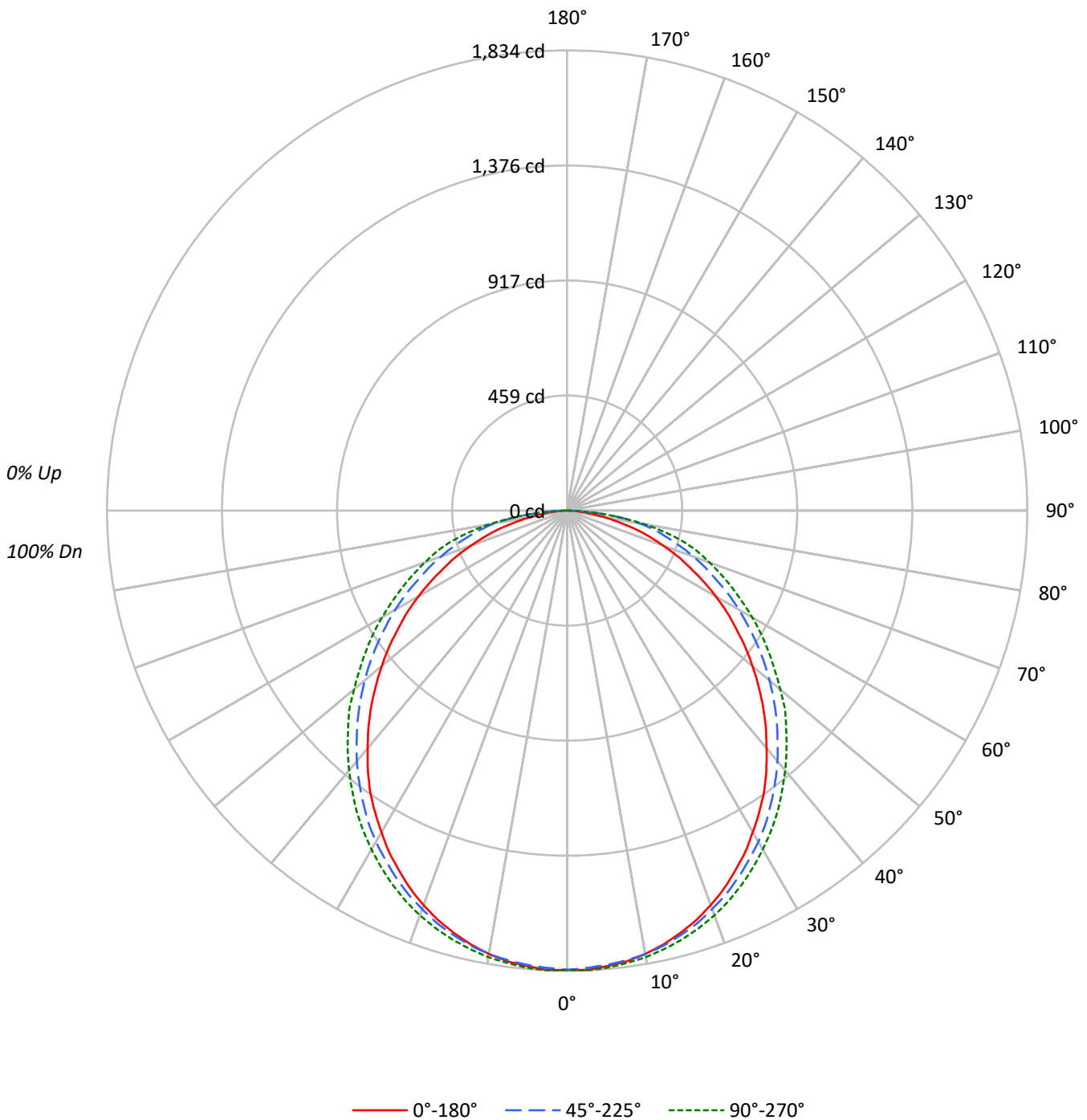
Lumens per Lamp: N/A
Luminaire Lumens: 5211.0 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	2463	2463	2463
5°	2461	2455	2470
10°	2451	2451	2469
15°	2428	2439	2465
20°	2396	2420	2458
25°	2352	2396	2443
30°	2299	2368	2422
35°	2248	2330	2403
40°	2172	2291	2375
45°	2101	2246	2350
50°	2020	2204	2321
55°	1930	2163	2299
60°	1840	2129	2294
65°	1723	2092	2308
70°	1595	2103	2370
75°	1429	2142	2504
80°	1155	2270	2449
85°	869	1993	1942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.3	3.3
10°-20°	495.2	9.5
20°-30°	744.4	14.3
30°-40°	886.7	17.0
40°-50°	907.5	17.4
50°-60°	817.0	15.7
60°-70°	641.6	12.3
70°-80°	416.4	8.0
80°-90°	128.8	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°	1412.9	27.1
0°-40°	2299.6	44.1
0°-60°	4024.2	77.2
0°-90°	5211.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5211.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1831	1831	1831	1831	1831	
5°	1822	1826	1817	1827	1829	173
15°	1743	1748	1751	1766	1769	491
25°	1584	1597	1614	1640	1645	730
35°	1369	1385	1418	1453	1463	854
45°	1104	1130	1180	1225	1235	851
55°	823	859	922	970	980	737
65°	541	583	657	712	725	539
75°	275	328	412	468	482	291
85°	56	104	129	126	126	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1830.7	1830.7	1830.7	1830.7	1830.7
2.5°	1832.3	1832.3	1824.0	1832.3	1834.0
5°	1822.4	1825.7	1817.4	1827.3	1829.0
7.5°	1812.5	1812.5	1807.5	1817.4	1819.1
10°	1794.2	1795.9	1794.2	1805.8	1807.5
12.5°	1771.1	1774.4	1776.0	1787.6	1789.3
15°	1742.9	1747.9	1751.2	1766.1	1769.4
17.5°	1711.5	1716.4	1724.7	1741.3	1744.6
20°	1673.4	1680.0	1690.0	1711.5	1716.4
22.5°	1632.0	1638.7	1655.2	1675.1	1683.3
25°	1584.0	1597.3	1613.8	1640.3	1645.3
27.5°	1536.0	1547.6	1569.1	1597.3	1603.9
30°	1479.8	1498.0	1524.4	1552.6	1559.2
32.5°	1425.1	1443.3	1474.8	1504.6	1512.9
35°	1368.9	1385.4	1418.5	1453.3	1463.2
37.5°	1304.3	1325.8	1362.2	1397.0	1406.9
40°	1236.4	1262.9	1304.3	1340.7	1352.3
42.5°	1171.9	1200.0	1241.4	1281.1	1294.4
45°	1104.0	1130.5	1180.2	1224.9	1234.8
47.5°	1034.5	1064.3	1117.3	1162.0	1178.5
50°	965.0	996.4	1052.7	1099.1	1109.0
52.5°	895.5	928.6	988.2	1037.8	1042.8
55°	822.6	859.1	921.9	970.0	979.9
57.5°	756.4	787.9	855.7	905.4	917.0
60°	683.6	718.4	791.2	837.5	852.4
62.5°	614.1	650.5	726.6	773.0	786.2
65°	541.3	582.6	657.1	711.7	725.0
67.5°	478.4	518.1	597.5	650.5	663.7
70°	405.5	450.2	534.6	589.3	602.5
72.5°	342.6	389.0	473.4	526.4	546.2
75°	274.8	327.7	412.1	468.4	481.7
77.5°	208.6	269.8	355.9	398.9	398.9
80°	149.0	213.5	293.0	312.8	316.1
82.5°	97.7	160.6	216.8	215.2	215.2
85°	56.3	104.3	129.1	125.8	125.8
87.5°	21.5	43.0	46.3	46.3	44.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)