

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: P272101

Luminaire Tested: **24CZ2-60HE-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: P272101
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-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED 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: 4960.0 lumens
Efficiency: N/A
Efficacy: 112.5 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

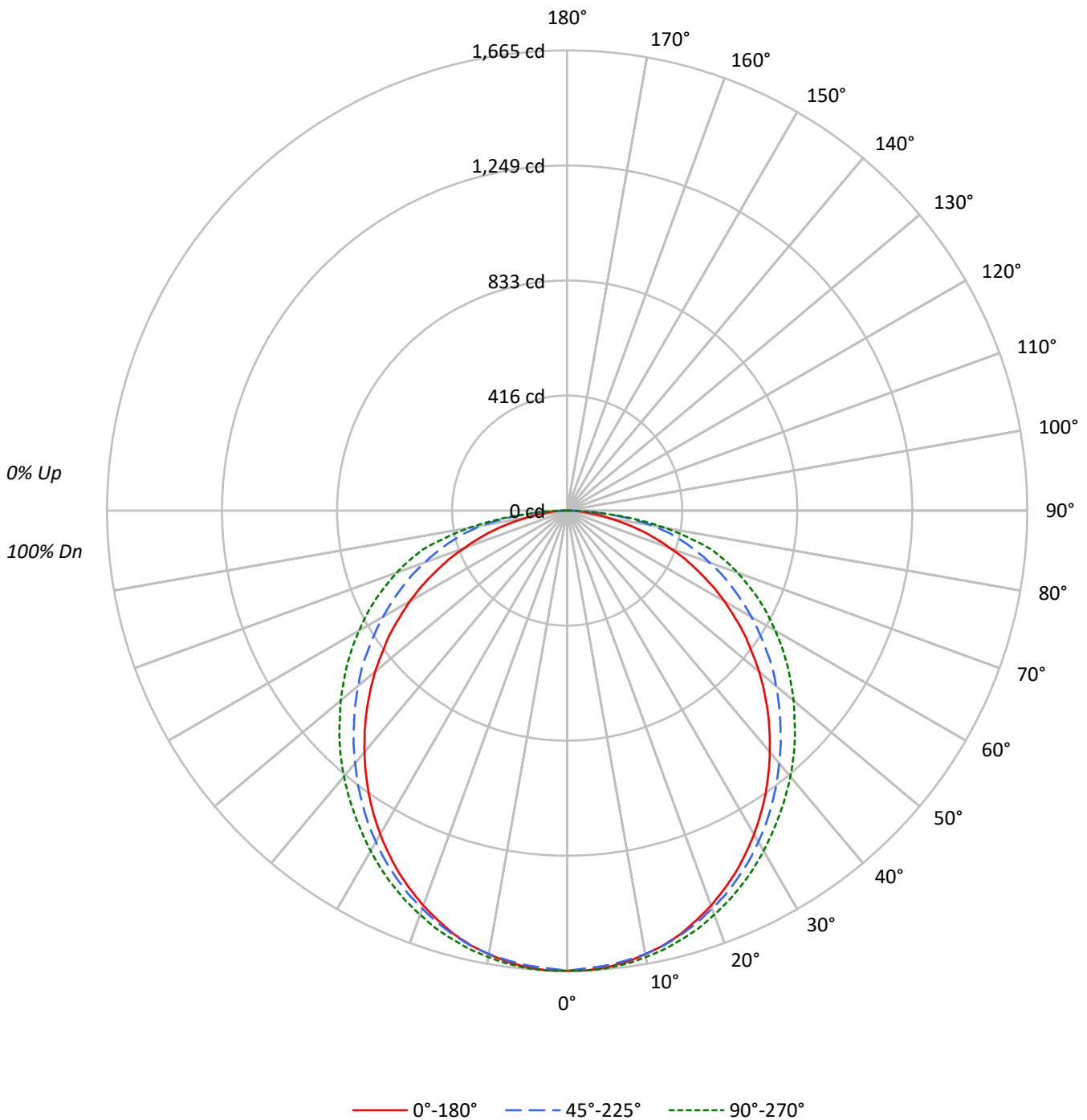
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2241	2241	2241
5°	2240	2231	2245
10°	2228	2225	2241
15°	2209	2214	2237
20°	2178	2195	2228
25°	2143	2175	2219
30°	2101	2150	2209
35°	2056	2123	2202
40°	2003	2096	2207
45°	1953	2076	2218
50°	1899	2065	2238
55°	1841	2062	2279
60°	1769	2071	2339
65°	1676	2103	2440
70°	1556	2155	2579
75°	1420	2263	2797
80°	1167	2437	2796
85°	894	2249	2402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	3.2
10°-20°	449.6	9.1
20°-30°	676.6	13.6
30°-40°	810.9	16.3
40°-50°	845.0	17.0
50°-60°	786.2	15.9
60°-70°	647.5	13.1
70°-80°	441.0	8.9
80°-90°	145.6	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°	1283.8	25.9
0°-40°	2094.7	42.2
0°-60°	3725.9	75.1
0°-90°	4960.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4960.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1665	1665	1665	1665	1665	
5°	1659	1659	1652	1660	1662	157
15°	1586	1588	1589	1604	1606	447
25°	1444	1450	1465	1490	1495	665
35°	1252	1266	1293	1328	1341	782
45°	1026	1048	1091	1146	1165	792
55°	785	811	879	948	972	699
65°	526	571	660	738	766	523
75°	273	334	435	513	538	288
85°	58	113	146	156	156	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1665.3	1665.3	1665.3	1665.3	1665.3
2.5°	1665.3	1665.3	1657.0	1665.3	1665.3
5°	1658.7	1658.7	1652.1	1660.3	1662.0
7.5°	1647.1	1648.7	1642.1	1652.1	1653.7
10°	1630.5	1632.2	1628.9	1638.8	1640.5
12.5°	1610.7	1612.3	1612.3	1623.9	1625.6
15°	1585.8	1587.5	1589.2	1604.1	1605.7
17.5°	1554.4	1559.4	1562.7	1580.9	1584.2
20°	1521.3	1526.3	1532.9	1552.7	1556.0
22.5°	1483.2	1489.8	1501.4	1522.9	1527.9
25°	1443.5	1450.1	1465.0	1489.8	1494.8
27.5°	1398.8	1408.7	1426.9	1453.4	1460.0
30°	1352.4	1362.4	1383.9	1412.0	1422.0
32.5°	1302.8	1316.0	1340.9	1372.3	1382.2
35°	1251.5	1266.4	1292.8	1327.6	1340.9
37.5°	1196.8	1213.4	1244.8	1282.9	1299.5
40°	1140.6	1160.4	1193.5	1238.2	1256.4
42.5°	1084.3	1102.5	1143.9	1191.9	1211.7
45°	1026.3	1047.8	1090.9	1145.5	1165.4
47.5°	966.7	988.3	1039.6	1097.5	1115.7
50°	907.1	928.7	986.6	1047.8	1069.4
52.5°	842.6	870.7	936.9	998.2	1019.7
55°	784.6	811.1	879.0	948.5	971.7
57.5°	718.4	749.9	824.4	897.2	922.0
60°	657.2	690.3	769.7	844.2	869.1
62.5°	594.3	630.7	715.1	791.3	819.4
65°	526.4	571.1	660.5	738.3	766.4
67.5°	465.2	511.5	605.9	685.3	710.2
70°	395.6	451.9	547.9	627.4	655.5
72.5°	336.0	392.3	493.3	571.1	599.2
75°	273.1	334.4	435.4	513.2	538.0
77.5°	210.2	278.1	379.1	438.7	447.0
80°	150.6	221.8	314.5	349.3	360.9
82.5°	105.9	170.5	231.8	254.9	261.5
85°	57.9	112.6	145.7	155.6	155.6
87.5°	24.8	48.0	57.9	59.6	61.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)