

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: P276231

Luminaire Tested: **24CZ2-60HE-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276231  
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-L92765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4471.7 lumens  
Efficiency: N/A  
Efficacy: 101.2 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

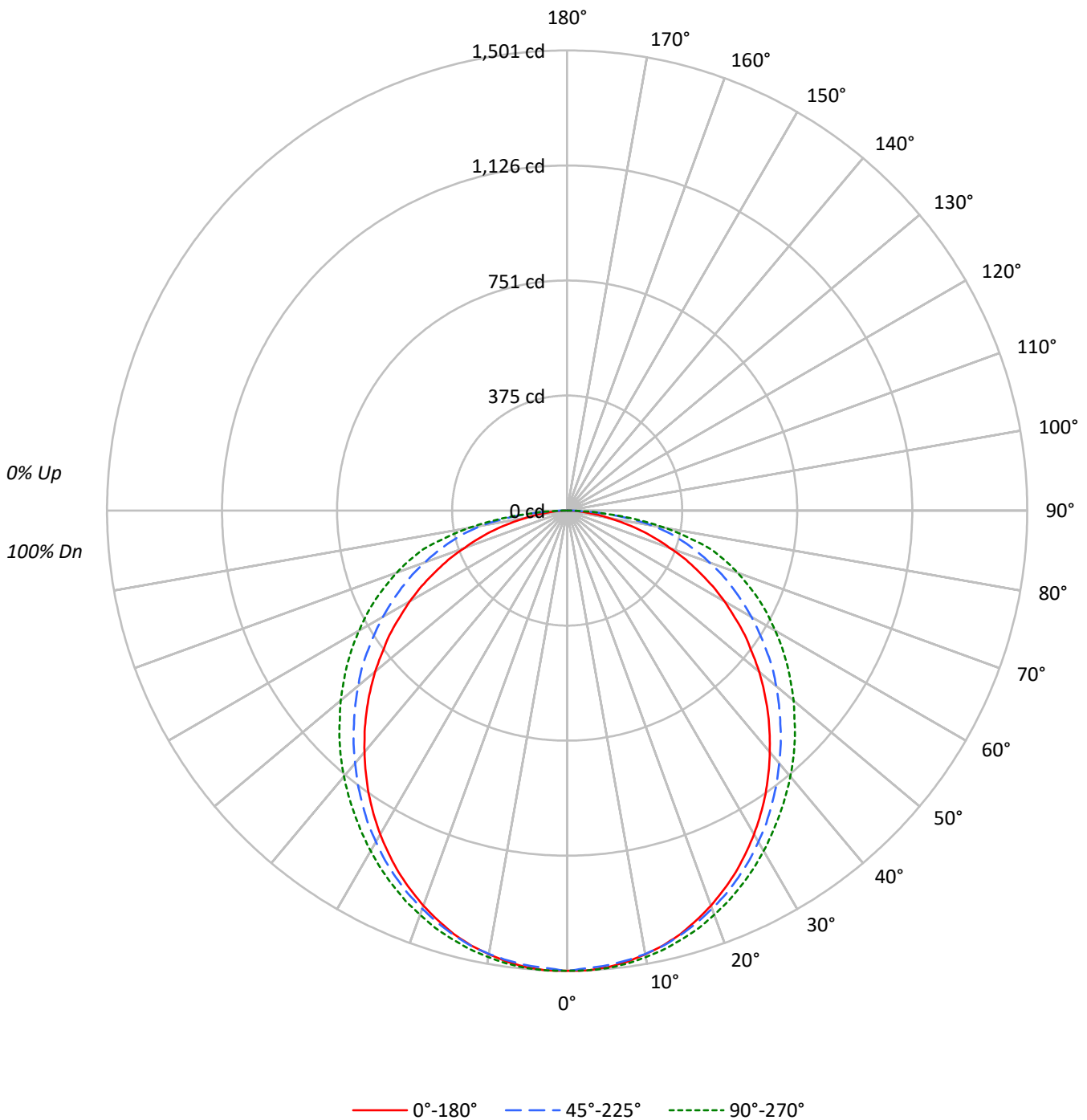
Input Watts (W): 44.175  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2020	2020	2020
5°	2020	2012	2024
10°	2008	2006	2021
15°	1992	1996	2016
20°	1964	1979	2009
25°	1932	1961	2001
30°	1894	1938	1992
35°	1853	1915	1986
40°	1806	1890	1989
45°	1761	1871	1999
50°	1712	1862	2018
55°	1659	1859	2055
60°	1594	1868	2108
65°	1511	1896	2200
70°	1403	1943	2325
75°	1280	2040	2521
80°	1052	2197	2521
85°	806	2027	2166



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.0	3.2
10°-20°	405.4	9.1
20°-30°	610.0	13.6
30°-40°	731.1	16.3
40°-50°	761.8	17.0
50°-60°	708.8	15.9
60°-70°	583.8	13.1
70°-80°	397.6	8.9
80°-90°	131.3	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°	1157.4	25.9
0°-40°	1888.5	42.2
0°-60°	3359.1	75.1
0°-90°	4471.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4471.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1501	1501	1501	1501	1501	
5°	1495	1495	1489	1497	1498	142
15°	1430	1431	1433	1446	1448	403
25°	1301	1307	1321	1343	1348	599
35°	1128	1142	1166	1197	1209	705
45°	925	945	984	1033	1051	714
55°	707	731	792	855	876	631
65°	475	515	596	666	691	471
75°	246	302	392	463	485	260
85°	52	102	131	140	140	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1501.4	1501.4	1501.4	1501.4	1501.4
2.5°	1501.4	1501.4	1493.9	1501.4	1501.4
5°	1495.4	1495.4	1489.4	1496.9	1498.4
7.5°	1485.0	1486.4	1480.5	1489.4	1490.9
10°	1470.0	1471.5	1468.5	1477.5	1479.0
12.5°	1452.1	1453.6	1453.6	1464.1	1465.6
15°	1429.7	1431.2	1432.7	1446.2	1447.6
17.5°	1401.4	1405.9	1408.8	1425.3	1428.2
20°	1371.5	1376.0	1382.0	1399.9	1402.9
22.5°	1337.2	1343.2	1353.6	1373.0	1377.5
25°	1301.4	1307.4	1320.8	1343.2	1347.7
27.5°	1261.1	1270.0	1286.5	1310.3	1316.3
30°	1219.3	1228.3	1247.7	1273.0	1282.0
32.5°	1174.5	1186.5	1208.9	1237.2	1246.2
35°	1128.3	1141.7	1165.6	1196.9	1208.9
37.5°	1079.0	1093.9	1122.3	1156.6	1171.5
40°	1028.3	1046.2	1076.0	1116.3	1132.7
42.5°	977.5	993.9	1031.3	1074.5	1092.4
45°	925.3	944.7	983.5	1032.8	1050.7
47.5°	871.6	891.0	937.2	989.5	1005.9
50°	817.8	837.2	889.5	944.7	964.1
52.5°	759.6	785.0	844.7	899.9	919.3
55°	707.4	731.3	792.5	855.2	876.0
57.5°	647.7	676.1	743.2	808.9	831.3
60°	592.5	622.3	694.0	761.1	783.5
62.5°	535.8	568.6	644.7	713.4	738.7
65°	474.6	514.9	595.5	665.6	691.0
67.5°	419.4	461.2	546.2	617.9	640.2
70°	356.7	407.4	494.0	565.6	591.0
72.5°	303.0	353.7	444.7	514.9	540.3
75°	246.2	301.5	392.5	462.6	485.0
77.5°	189.5	250.7	341.8	395.5	403.0
80°	135.8	200.0	283.6	314.9	325.3
82.5°	95.5	153.7	208.9	229.8	235.8
85°	52.2	101.5	131.3	140.3	140.3
87.5°	22.4	43.3	52.2	53.7	55.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)