

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: P276625

Luminaire Tested: **24CZ2-45HE-S-UNV-L92765-W2A1-U-3000K**

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: P276625
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: 24CZ2-45HE-S-UNV-L92765-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3633.0 lumens
Efficiency: N/A
Efficacy: 116.6 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

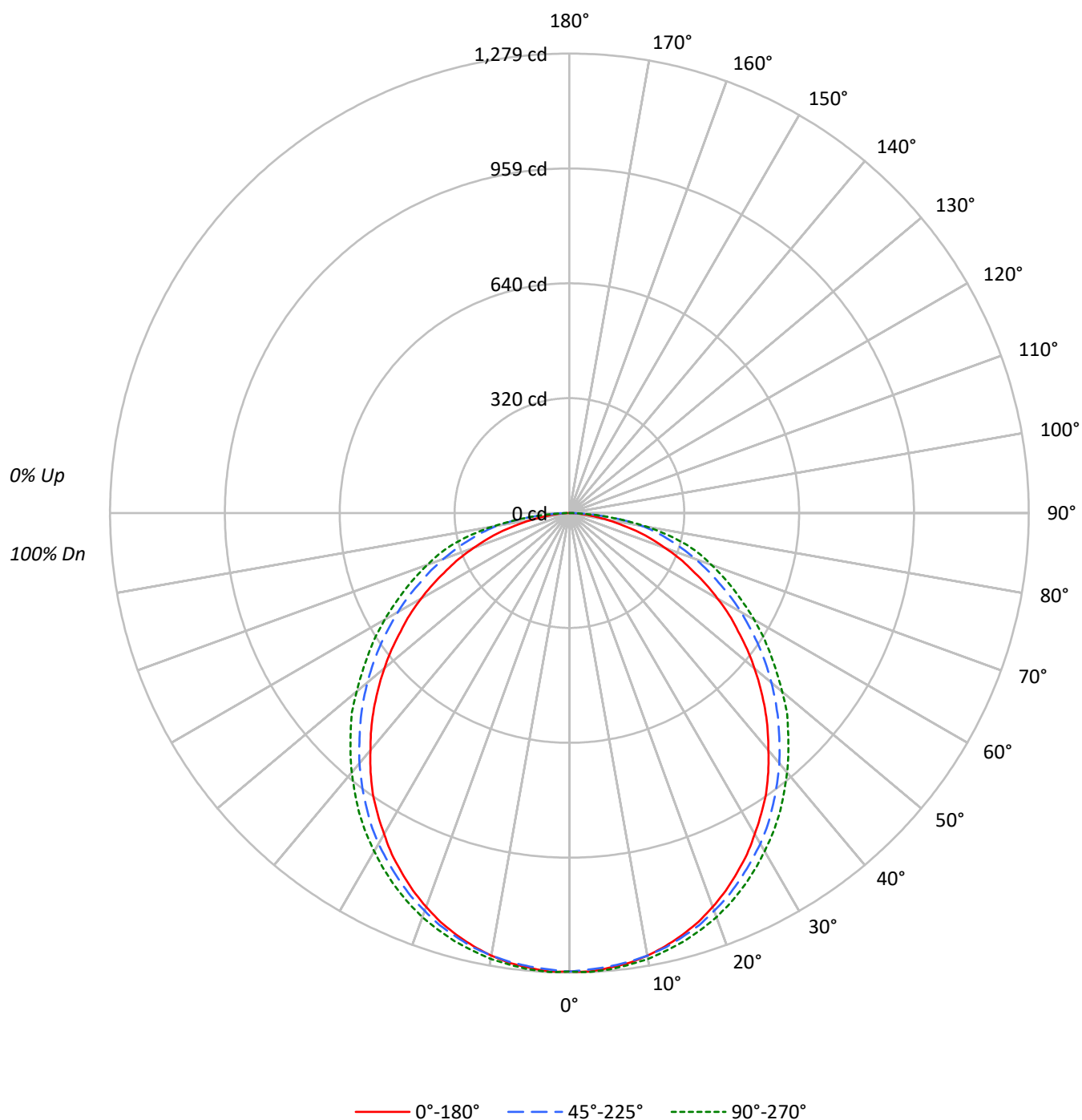
Input Watts (W): 31.155
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1717	1717	1717
5°	1716	1711	1722
10°	1709	1709	1722
15°	1693	1701	1718
20°	1671	1687	1713
25°	1640	1670	1703
30°	1603	1651	1689
35°	1568	1624	1676
40°	1514	1597	1656
45°	1465	1566	1638
50°	1408	1536	1618
55°	1345	1508	1603
60°	1283	1484	1599
65°	1202	1458	1609
70°	1112	1466	1653
75°	996	1494	1746
80°	805	1583	1708
85°	605	1389	1354



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.8	3.3
10°-20°	345.3	9.5
20°-30°	519.0	14.3
30°-40°	618.2	17.0
40°-50°	632.7	17.4
50°-60°	569.6	15.7
60°-70°	447.3	12.3
70°-80°	290.3	8.0
80°-90°	89.8	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°	985.1	27.1
0°-40°	1603.3	44.1
0°-60°	2805.6	77.2
0°-90°	3633.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3633.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1276	1276	1276	1276	1276	
5°	1270	1273	1267	1274	1275	121
15°	1215	1219	1221	1231	1234	343
25°	1104	1114	1125	1144	1147	509
35°	954	966	989	1013	1020	595
45°	770	788	823	854	861	593
55°	574	599	643	676	683	514
65°	377	406	458	496	505	376
75°	192	228	287	327	336	203
85°	39	73	90	88	88	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1276.3	1276.3	1276.3	1276.3	1276.3
2.5°	1277.5	1277.5	1271.7	1277.5	1278.6
5°	1270.5	1272.9	1267.1	1274.0	1275.2
7.5°	1263.6	1263.6	1260.2	1267.1	1268.2
10°	1250.9	1252.1	1250.9	1259.0	1260.2
12.5°	1234.8	1237.1	1238.2	1246.3	1247.5
15°	1215.2	1218.6	1220.9	1231.3	1233.6
17.5°	1193.2	1196.7	1202.5	1214.0	1216.3
20°	1166.7	1171.3	1178.2	1193.2	1196.7
22.5°	1137.8	1142.5	1154.0	1167.8	1173.6
25°	1104.4	1113.6	1125.1	1143.6	1147.1
27.5°	1070.9	1079.0	1094.0	1113.6	1118.2
30°	1031.7	1044.4	1062.8	1082.4	1087.1
32.5°	993.6	1006.3	1028.2	1049.0	1054.7
35°	954.4	965.9	989.0	1013.2	1020.1
37.5°	909.3	924.3	949.7	974.0	980.9
40°	862.0	880.5	909.3	934.7	942.8
42.5°	817.0	836.6	865.5	893.2	902.4
45°	769.7	788.2	822.8	854.0	860.9
47.5°	721.2	742.0	778.9	810.1	821.6
50°	672.8	694.7	733.9	766.2	773.2
52.5°	624.3	647.4	688.9	723.6	727.0
55°	573.5	598.9	642.8	676.2	683.2
57.5°	527.4	549.3	596.6	631.2	639.3
60°	476.6	500.8	551.6	583.9	594.3
62.5°	428.1	453.5	506.6	538.9	548.1
65°	377.4	406.2	458.1	496.2	505.4
67.5°	333.5	361.2	416.6	453.5	462.8
70°	282.7	313.9	372.7	410.8	420.1
72.5°	238.9	271.2	330.0	367.0	380.8
75°	191.6	228.5	287.3	326.6	335.8
77.5°	145.4	188.1	248.1	278.1	278.1
80°	103.9	148.9	204.3	218.1	220.4
82.5°	68.1	111.9	151.2	150.0	150.0
85°	39.2	72.7	90.0	87.7	87.7
87.5°	15.0	30.0	32.3	32.3	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)