

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: P276630

Luminaire Tested: **24CZ2-45HE-S-UNV-L92765-W2A1-U-5500K**

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: P276630
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-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4184.7 lumens
Efficiency: N/A
Efficacy: 129.7 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

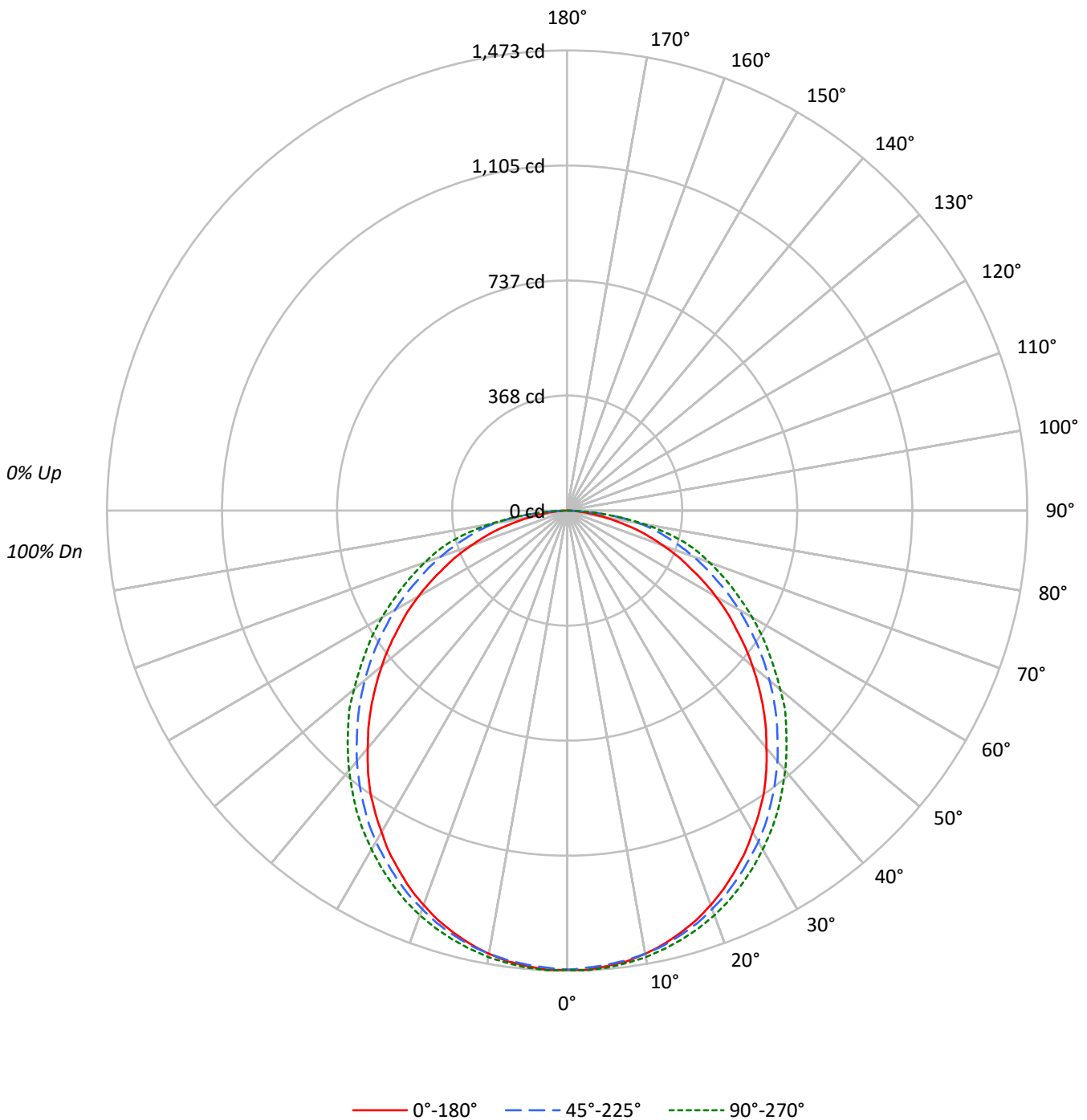
Input Watts (W): 32.271
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276630

CATALOG NUMBER: 24CZ2-45HE-S-UNV-L92765-W2A1-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P276630

CATALOG NUMBER: 24CZ2-45HE-S-UNV-L92765-W2A1-U-5500K

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°	1978	1978	1978
5°	1977	1971	1984
10°	1969	1969	1983
15°	1950	1959	1979
20°	1924	1943	1974
25°	1889	1924	1961
30°	1846	1902	1945
35°	1806	1871	1930
40°	1744	1840	1907
45°	1687	1803	1887
50°	1622	1770	1864
55°	1550	1737	1846
60°	1477	1710	1842
65°	1384	1680	1854
70°	1281	1689	1903
75°	1147	1721	2011
80°	927	1823	1967
85°	698	1601	1559



TEST NUMBER: P276630

CATALOG NUMBER: 24CZ2-45HE-S-UNV-L92765-W2A1-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	3.3
10°-20°	397.7	9.5
20°-30°	597.8	14.3
30°-40°	712.1	17.0
40°-50°	728.8	17.4
50°-60°	656.1	15.7
60°-70°	515.3	12.3
70°-80°	334.4	8.0
80°-90°	103.4	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°	1134.7	27.1
0°-40°	1846.7	44.1
0°-60°	3231.6	77.2
0°-90°	4184.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4184.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1464	1466	1460	1468	1469	139
15°	1400	1404	1406	1418	1421	395
25°	1272	1283	1296	1317	1321	586
35°	1099	1113	1139	1167	1175	686
45°	887	908	948	984	992	684
55°	661	690	740	779	787	592
65°	435	468	528	572	582	433
75°	221	263	331	376	387	234
85°	45	84	104	101	101	55
90°	0	0	0	0	0	



TEST NUMBER: P276630

CATALOG NUMBER: 24CZ2-45HE-S-UNV-L92765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.1	1470.1	1470.1	1470.1	1470.1
2.5°	1471.4	1471.4	1464.8	1471.4	1472.8
5°	1463.5	1466.1	1459.5	1467.5	1468.8
7.5°	1455.5	1455.5	1451.5	1459.5	1460.8
10°	1440.9	1442.2	1440.9	1450.2	1451.5
12.5°	1422.3	1424.9	1426.3	1435.6	1436.9
15°	1399.7	1403.7	1406.3	1418.3	1420.9
17.5°	1374.4	1378.4	1385.0	1398.3	1401.0
20°	1343.8	1349.2	1357.1	1374.4	1378.4
22.5°	1310.6	1315.9	1329.2	1345.2	1351.8
25°	1272.1	1282.7	1296.0	1317.3	1321.2
27.5°	1233.5	1242.8	1260.1	1282.7	1288.0
30°	1188.3	1202.9	1224.2	1246.8	1252.1
32.5°	1144.5	1159.1	1184.3	1208.3	1214.9
35°	1099.3	1112.6	1139.1	1167.1	1175.0
37.5°	1047.4	1064.7	1093.9	1121.9	1129.8
40°	992.9	1014.2	1047.4	1076.7	1086.0
42.5°	941.1	963.7	996.9	1028.8	1039.5
45°	886.6	907.9	947.7	983.6	991.6
47.5°	830.8	854.7	897.2	933.1	946.4
50°	774.9	800.2	845.4	882.6	890.6
52.5°	719.1	745.7	793.5	833.4	837.4
55°	660.6	689.9	740.4	778.9	786.9
57.5°	607.5	632.7	687.2	727.1	736.4
60°	549.0	576.9	635.4	672.6	684.5
62.5°	493.1	522.4	583.5	620.7	631.4
65°	434.7	467.9	527.7	571.6	582.2
67.5°	384.1	416.0	479.8	522.4	533.0
70°	325.7	361.5	429.3	473.2	483.8
72.5°	275.1	312.4	380.2	422.7	438.6
75°	220.7	263.2	331.0	376.2	386.8
77.5°	167.5	216.7	285.8	320.3	320.3
80°	119.6	171.5	235.3	251.2	253.9
82.5°	78.4	128.9	174.1	172.8	172.8
85°	45.2	83.7	103.7	101.0	101.0
87.5°	17.3	34.6	37.2	37.2	35.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)