

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: P276415

Luminaire Tested: **24CZ2-55HE-S-UNV-L93050-W2A1-U-4500K**

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: P276415
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: 24CZ2-55HE-S-UNV-L93050-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5152.6 lumens
Efficiency: N/A
Efficacy: 123.4 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

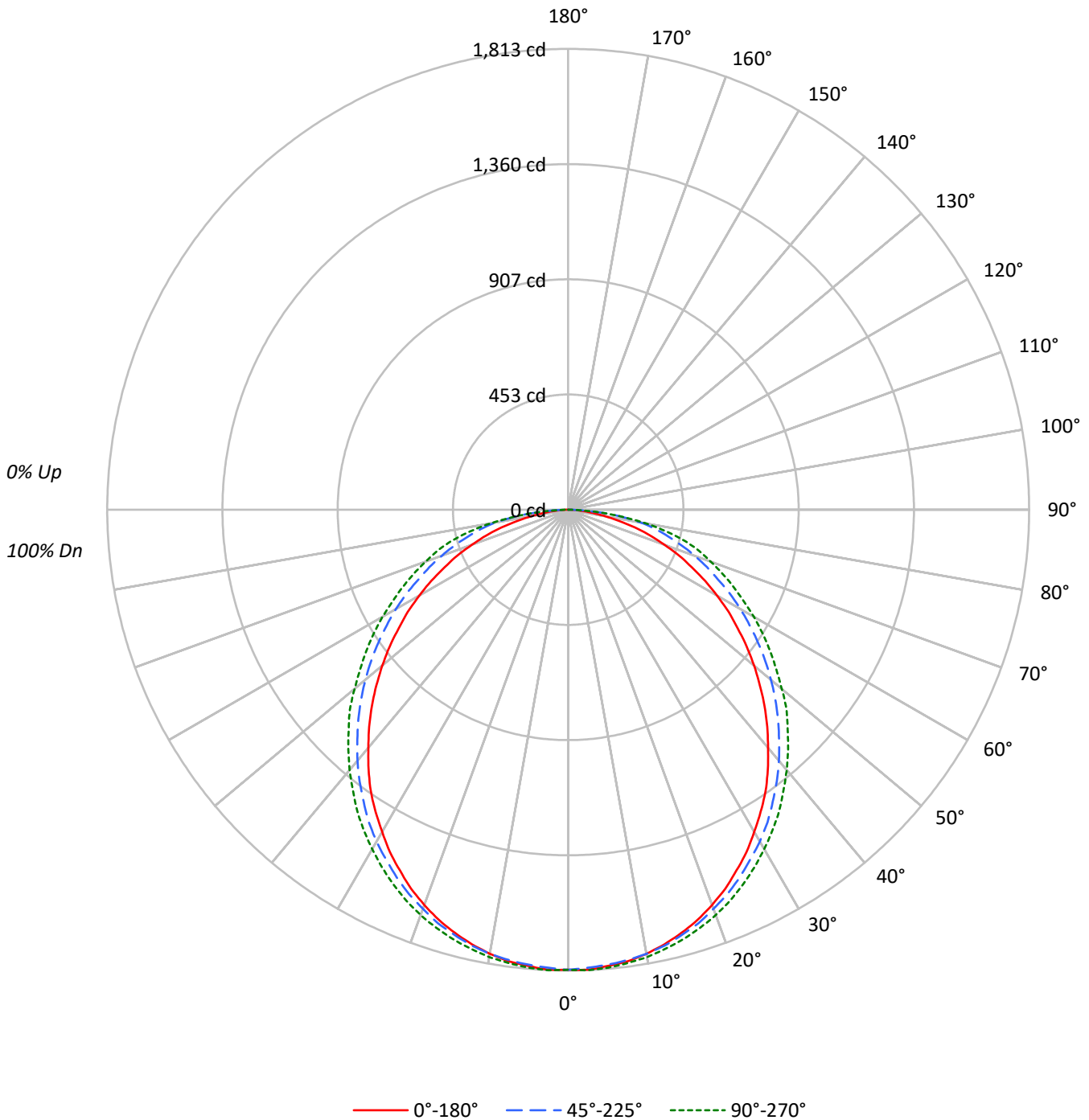
Input Watts (W): 41.766486
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276415

CATALOG NUMBER: 24CZ2-55HE-S-UNV-L93050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P276415

CATALOG NUMBER: 24CZ2-55HE-S-UNV-L93050-W2A1-U-4500K

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°	2435	2435	2435
5°	2434	2427	2443
10°	2424	2424	2442
15°	2401	2412	2437
20°	2369	2393	2430
25°	2325	2369	2415
30°	2273	2342	2395
35°	2223	2304	2376
40°	2147	2265	2348
45°	2077	2220	2323
50°	1997	2179	2295
55°	1908	2138	2273
60°	1819	2105	2268
65°	1704	2068	2282
70°	1578	2079	2343
75°	1412	2118	2476
80°	1141	2245	2422
85°	858	1971	1920



TEST NUMBER: P276415

CATALOG NUMBER: 24CZ2-55HE-S-UNV-L93050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.4	3.3
10°-20°	489.7	9.5
20°-30°	736.1	14.3
30°-40°	876.8	17.0
40°-50°	897.3	17.4
50°-60°	807.9	15.7
60°-70°	634.4	12.3
70°-80°	411.8	8.0
80°-90°	127.4	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°	1397.1	27.1
0°-40°	2273.9	44.1
0°-60°	3979.0	77.2
0°-90°	5152.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5152.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1810	1810	1810	1810	1810	
5°	1802	1805	1797	1807	1808	171
15°	1723	1728	1732	1746	1750	486
25°	1566	1579	1596	1622	1627	722
35°	1354	1370	1403	1437	1447	844
45°	1092	1118	1167	1211	1221	842
55°	813	849	912	959	969	729
65°	535	576	650	704	717	533
75°	272	324	408	463	476	288
85°	56	103	128	124	124	67
90°	0	0	0	0	0	



TEST NUMBER: P276415

CATALOG NUMBER: 24CZ2-55HE-S-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1810.1	1810.1	1810.1	1810.1	1810.1
2.5°	1811.8	1811.8	1803.6	1811.8	1813.4
5°	1801.9	1805.2	1797.0	1806.9	1808.5
7.5°	1792.1	1792.1	1787.2	1797.0	1798.7
10°	1774.1	1775.8	1774.1	1785.6	1787.2
12.5°	1751.2	1754.5	1756.1	1767.6	1769.2
15°	1723.4	1728.3	1731.6	1746.3	1749.6
17.5°	1692.3	1697.2	1705.4	1721.8	1725.0
20°	1654.6	1661.2	1671.0	1692.3	1697.2
22.5°	1613.7	1620.3	1636.6	1656.3	1664.5
25°	1566.3	1579.4	1595.7	1621.9	1626.8
27.5°	1518.8	1530.3	1551.5	1579.4	1585.9
30°	1463.2	1481.2	1507.4	1535.2	1541.7
32.5°	1409.2	1427.2	1458.3	1487.7	1495.9
35°	1353.5	1369.9	1402.6	1437.0	1446.8
37.5°	1289.7	1311.0	1347.0	1381.3	1391.1
40°	1222.6	1248.8	1289.7	1325.7	1337.1
42.5°	1158.7	1186.6	1227.5	1266.8	1279.9
45°	1091.6	1117.8	1166.9	1211.1	1220.9
47.5°	1022.9	1052.4	1104.7	1148.9	1165.3
50°	954.2	985.3	1040.9	1086.7	1096.6
52.5°	885.4	918.2	977.1	1026.2	1031.1
55°	813.4	849.4	911.6	959.1	968.9
57.5°	747.9	779.0	846.1	895.2	906.7
60°	675.9	710.3	782.3	828.1	842.9
62.5°	607.2	643.2	718.5	764.3	777.4
65°	535.2	576.1	649.7	703.8	716.9
67.5°	473.0	512.3	590.8	643.2	656.3
70°	401.0	445.2	528.6	582.6	595.7
72.5°	338.8	384.6	468.1	520.5	540.1
75°	271.7	324.1	407.5	463.2	476.3
77.5°	206.2	266.8	351.9	394.4	394.4
80°	147.3	211.1	289.7	309.3	312.6
82.5°	96.6	158.8	214.4	212.8	212.8
85°	55.6	103.1	127.7	124.4	124.4
87.5°	21.3	42.6	45.8	45.8	44.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)