

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: P272167

Luminaire Tested: **24CZ2-55HE-S-UNV-L940-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: P272167
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-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (224) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

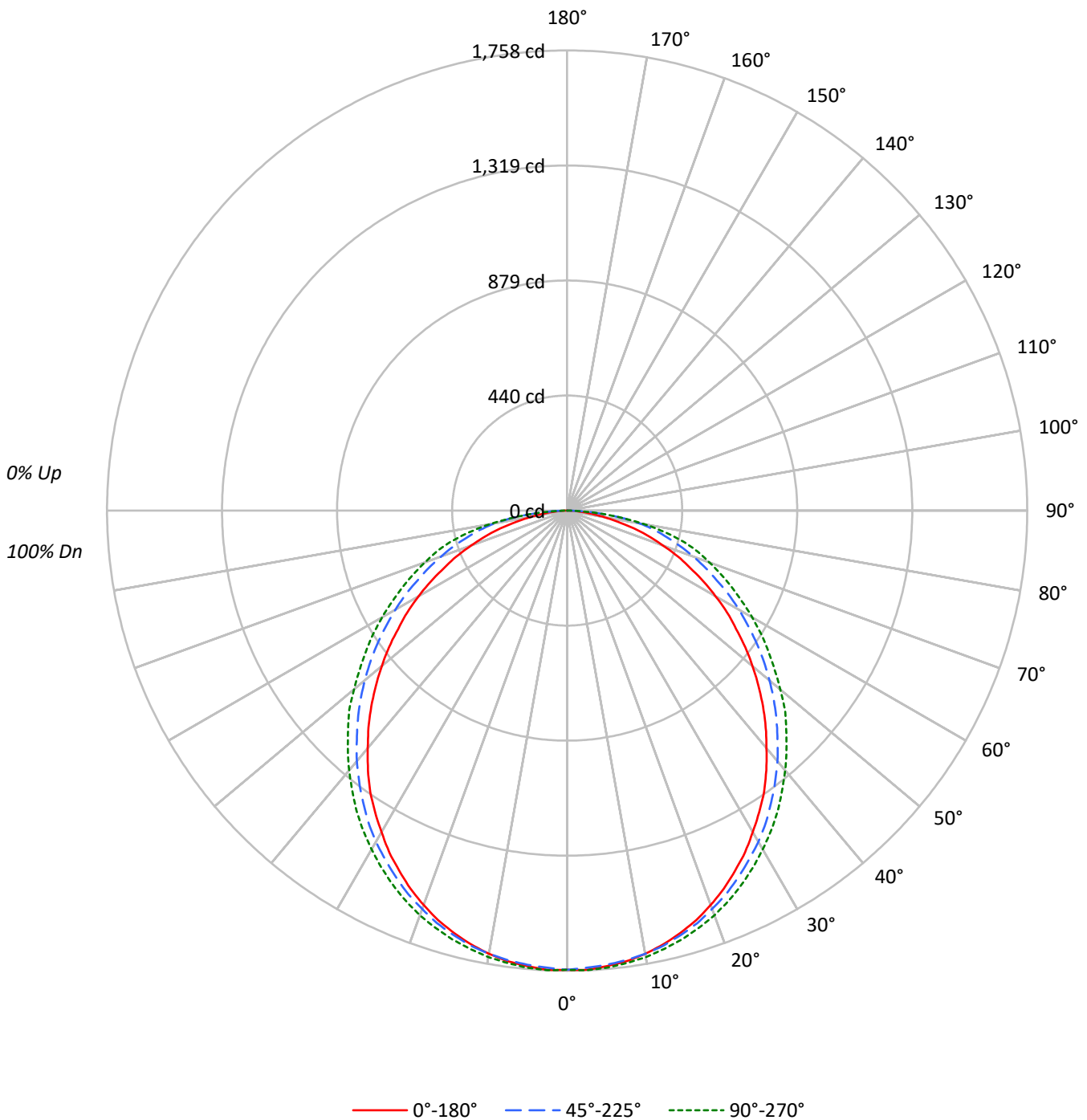
Lumens per Lamp: N/A
Luminaire Lumens: 4994.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.5
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



TEST NUMBER: P272167
CATALOG NUMBER: 24CZ2-55HE-S-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P272167

CATALOG NUMBER: 24CZ2-55HE-S-UNV-L940-CD1-U

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°	2361	2361	2361
5°	2359	2352	2367
10°	2349	2349	2367
15°	2327	2338	2362
20°	2296	2319	2355
25°	2254	2296	2341
30°	2203	2270	2322
35°	2155	2233	2303
40°	2081	2196	2276
45°	2013	2152	2252
50°	1936	2112	2225
55°	1849	2073	2203
60°	1763	2040	2198
65°	1651	2005	2212
70°	1529	2016	2271
75°	1369	2053	2400
80°	1106	2176	2348
85°	832	1910	1862



TEST NUMBER: P272167

CATALOG NUMBER: 24CZ2-55HE-S-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.1	3.3
10°-20°	474.6	9.5
20°-30°	713.4	14.3
30°-40°	849.8	17.0
40°-50°	869.7	17.4
50°-60°	783.0	15.7
60°-70°	614.9	12.3
70°-80°	399.1	8.0
80°-90°	123.4	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°	1354.1	27.1
0°-40°	2203.9	44.1
0°-60°	3856.6	77.2
0°-90°	4994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4994.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1754	1754	1754	1754	1754	
5°	1746	1750	1742	1751	1753	166
15°	1670	1675	1678	1693	1696	471
25°	1518	1531	1547	1572	1577	699
35°	1312	1328	1359	1393	1402	818
45°	1058	1083	1131	1174	1183	816
55°	788	823	884	930	939	707
65°	519	558	630	682	695	516
75°	263	314	395	449	462	279
85°	54	100	124	121	121	65
90°	0	0	0	0	0	



TEST NUMBER: P272167

CATALOG NUMBER: 24CZ2-55HE-S-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1754.4	1754.4	1754.4	1754.4	1754.4
2.5°	1756.0	1756.0	1748.1	1756.0	1757.6
5°	1746.5	1749.7	1741.7	1751.3	1752.8
7.5°	1737.0	1737.0	1732.2	1741.7	1743.3
10°	1719.5	1721.1	1719.5	1730.6	1732.2
12.5°	1697.3	1700.5	1702.1	1713.2	1714.8
15°	1670.4	1675.1	1678.3	1692.6	1695.7
17.5°	1640.2	1645.0	1652.9	1668.8	1671.9
20°	1603.7	1610.1	1619.6	1640.2	1645.0
22.5°	1564.1	1570.4	1586.3	1605.3	1613.2
25°	1518.1	1530.8	1546.6	1572.0	1576.8
27.5°	1472.1	1483.2	1503.8	1530.8	1537.1
30°	1418.1	1435.6	1461.0	1487.9	1494.3
32.5°	1365.8	1383.2	1413.4	1441.9	1449.9
35°	1311.9	1327.7	1359.4	1392.8	1402.3
37.5°	1250.0	1270.6	1305.5	1338.8	1348.3
40°	1185.0	1210.3	1250.0	1284.9	1296.0
42.5°	1123.1	1150.1	1189.7	1227.8	1240.5
45°	1058.0	1083.4	1131.0	1173.8	1183.4
47.5°	991.4	1020.0	1070.7	1113.6	1129.4
50°	924.8	954.9	1008.9	1053.3	1062.8
52.5°	858.2	889.9	947.0	994.6	999.4
55°	788.4	823.3	883.6	929.6	939.1
57.5°	724.9	755.1	820.1	867.7	878.8
60°	655.1	688.4	758.2	802.7	816.9
62.5°	588.5	623.4	696.4	740.8	753.5
65°	518.7	558.4	629.8	682.1	694.8
67.5°	458.4	496.5	572.6	623.4	636.1
70°	388.6	431.5	512.4	564.7	577.4
72.5°	328.4	372.8	453.7	504.4	523.5
75°	263.3	314.1	395.0	448.9	461.6
77.5°	199.9	258.6	341.1	382.3	382.3
80°	142.8	204.6	280.8	299.8	303.0
82.5°	93.6	153.9	207.8	206.2	206.2
85°	53.9	99.9	123.7	120.6	120.6
87.5°	20.6	41.2	44.4	44.4	42.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)