

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: P272150

Luminaire Tested: **24CZ2-45HE-S-UNV-L935-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: P272150
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-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

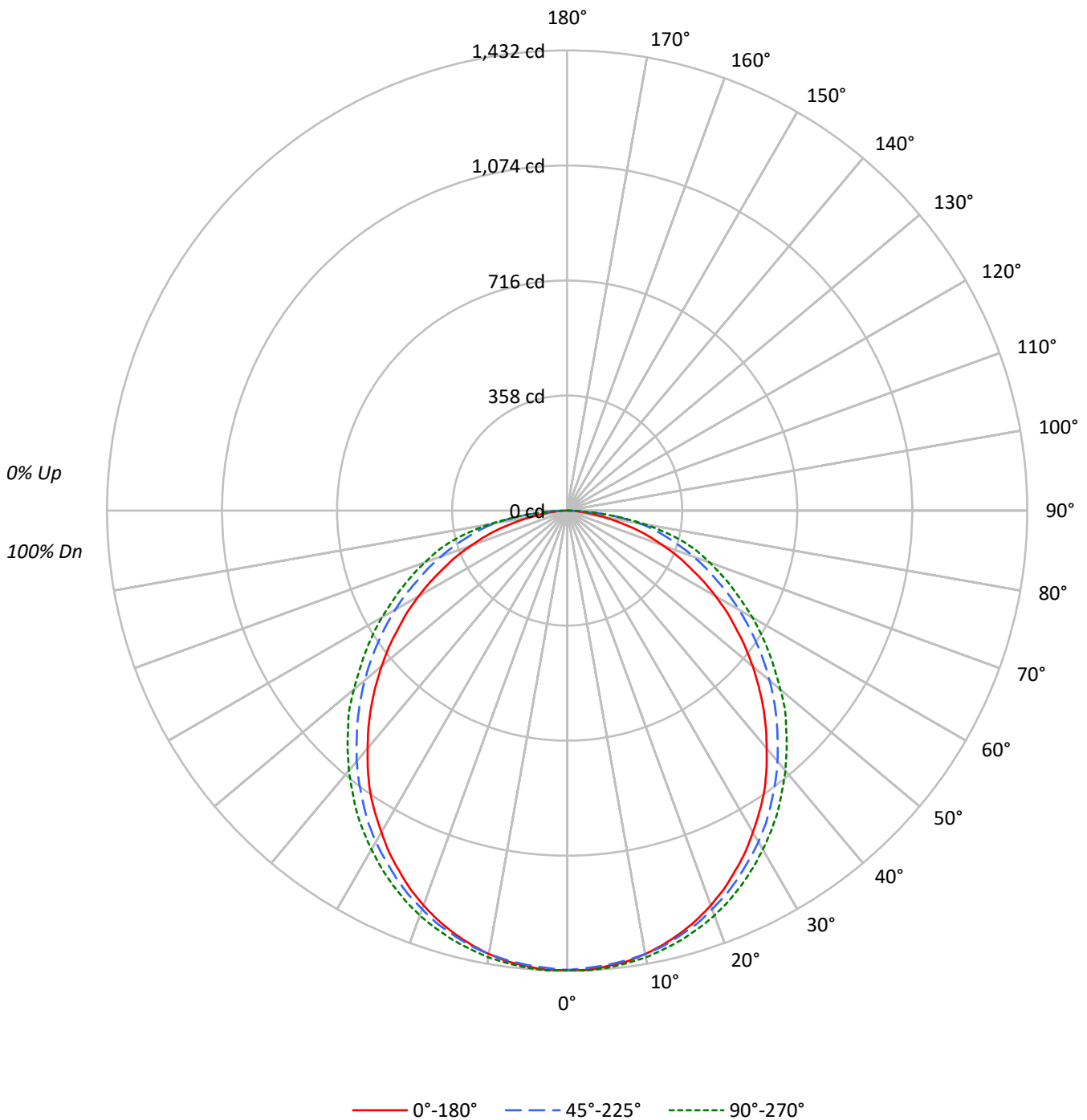
Lumens per Lamp: N/A
Luminaire Lumens: 4070.0 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.3
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



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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	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°	1924	1924	1924
5°	1922	1917	1929
10°	1915	1915	1929
15°	1896	1905	1925
20°	1871	1890	1920
25°	1837	1871	1908
30°	1796	1850	1892
35°	1756	1820	1877
40°	1696	1789	1855
45°	1641	1754	1835
50°	1578	1721	1813
55°	1507	1689	1795
60°	1437	1663	1792
65°	1346	1634	1803
70°	1246	1643	1851
75°	1116	1673	1956
80°	902	1773	1913
85°	679	1556	1518



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.4	3.3
10°-20°	386.8	9.5
20°-30°	581.4	14.3
30°-40°	692.6	17.0
40°-50°	708.8	17.4
50°-60°	638.1	15.7
60°-70°	501.1	12.3
70°-80°	325.2	8.0
80°-90°	100.6	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°	1103.6	27.1
0°-40°	1796.1	44.1
0°-60°	3143.1	77.2
0°-90°	4070.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4070.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1430	1430	1430	1430	1430	
5°	1423	1426	1420	1427	1428	135
15°	1361	1365	1368	1379	1382	384
25°	1237	1248	1260	1281	1285	570
35°	1069	1082	1108	1135	1143	667
45°	862	883	922	957	964	665
55°	642	671	720	758	765	576
65°	423	455	513	556	566	421
75°	215	256	322	366	376	227
85°	44	81	101	98	98	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1429.8	1429.8	1429.8	1429.8	1429.8
2.5°	1431.1	1431.1	1424.6	1431.1	1432.4
5°	1423.4	1425.9	1419.5	1427.2	1428.5
7.5°	1415.6	1415.6	1411.7	1419.5	1420.8
10°	1401.4	1402.7	1401.4	1410.4	1411.7
12.5°	1383.3	1385.9	1387.2	1396.2	1397.5
15°	1361.3	1365.2	1367.8	1379.4	1382.0
17.5°	1336.7	1340.6	1347.1	1360.0	1362.6
20°	1307.0	1312.2	1319.9	1336.7	1340.6
22.5°	1274.7	1279.9	1292.8	1308.3	1314.8
25°	1237.2	1247.5	1260.5	1281.1	1285.0
27.5°	1199.7	1208.8	1225.6	1247.5	1252.7
30°	1155.7	1170.0	1190.7	1212.6	1217.8
32.5°	1113.1	1127.3	1151.9	1175.1	1181.6
35°	1069.1	1082.1	1107.9	1135.1	1142.8
37.5°	1018.7	1035.5	1064.0	1091.1	1098.9
40°	965.7	986.4	1018.7	1047.2	1056.2
42.5°	915.3	937.3	969.6	1000.6	1011.0
45°	862.3	883.0	921.8	956.7	964.4
47.5°	808.0	831.3	872.6	907.5	920.5
50°	753.7	778.3	822.2	858.4	866.2
52.5°	699.4	725.3	771.8	810.6	814.5
55°	642.5	671.0	720.1	757.6	765.3
57.5°	590.8	615.4	668.4	707.2	716.2
60°	533.9	561.1	618.0	654.1	665.8
62.5°	479.6	508.1	567.5	603.7	614.1
65°	422.7	455.1	513.2	555.9	566.2
67.5°	373.6	404.6	466.7	508.1	518.4
70°	316.7	351.6	417.6	460.2	470.6
72.5°	267.6	303.8	369.7	411.1	426.6
75°	214.6	256.0	321.9	365.9	376.2
77.5°	162.9	210.7	277.9	311.6	311.6
80°	116.4	166.8	228.8	244.3	246.9
82.5°	76.3	125.4	169.4	168.1	168.1
85°	44.0	81.4	100.8	98.3	98.3
87.5°	16.8	33.6	36.2	36.2	34.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)