

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: P272079

Luminaire Tested: **24CZ2-45HE-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: P272079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45HE-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3914.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

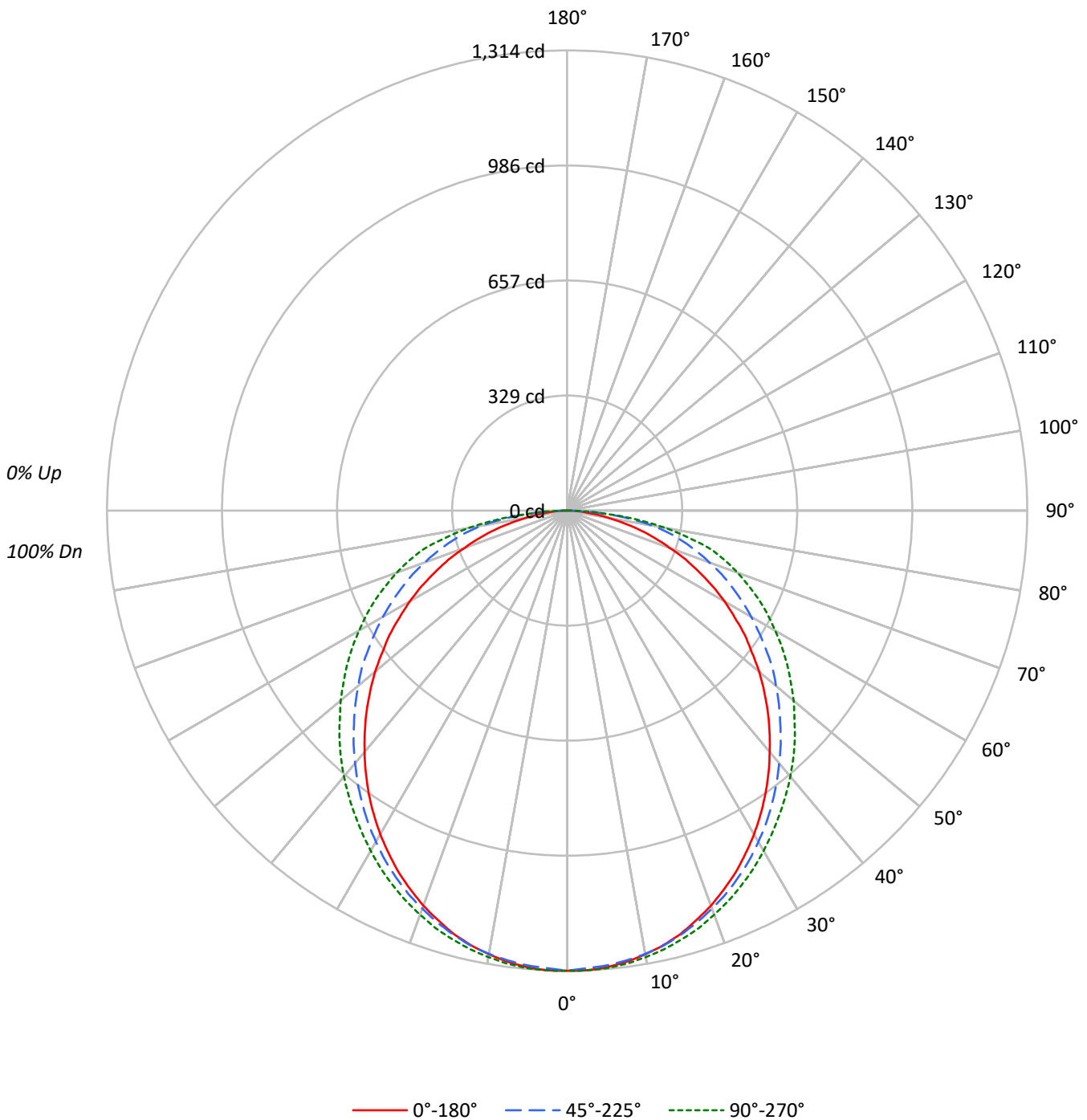
Input Watts (W): 35.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1768	1768	1768
5°	1768	1761	1771
10°	1758	1756	1769
15°	1743	1747	1765
20°	1719	1732	1758
25°	1691	1716	1751
30°	1658	1697	1743
35°	1622	1676	1738
40°	1581	1654	1741
45°	1541	1638	1750
50°	1498	1630	1766
55°	1453	1627	1799
60°	1396	1635	1845
65°	1323	1659	1926
70°	1228	1701	2035
75°	1120	1786	2207
80°	921	1923	2207
85°	706	1775	1896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.3	3.2
10°-20°	354.8	9.1
20°-30°	533.9	13.6
30°-40°	639.9	16.3
40°-50°	666.8	17.0
50°-60°	620.4	15.9
60°-70°	511.0	13.1
70°-80°	348.0	8.9
80°-90°	114.9	2.9
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°	1013.0	25.9
0°-40°	1652.9	42.2
0°-60°	2940.1	75.1
0°-90°	3914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1309	1309	1304	1310	1312	124
15°	1251	1253	1254	1266	1267	353
25°	1139	1144	1156	1176	1180	524
35°	988	999	1020	1048	1058	617
45°	810	827	861	904	920	625
55°	619	640	694	748	767	552
65°	415	451	521	583	605	412
75°	216	264	344	405	424	227
85°	46	89	115	123	123	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1314.1	1314.1	1314.1	1314.1	1314.1
2.5°	1314.1	1314.1	1307.6	1314.1	1314.1
5°	1308.9	1308.9	1303.7	1310.2	1311.5
7.5°	1299.7	1301.0	1295.8	1303.7	1305.0
10°	1286.7	1288.0	1285.4	1293.2	1294.5
12.5°	1271.0	1272.3	1272.3	1281.5	1282.8
15°	1251.4	1252.7	1254.0	1265.8	1267.1
17.5°	1226.6	1230.5	1233.1	1247.5	1250.1
20°	1200.5	1204.4	1209.6	1225.3	1227.9
22.5°	1170.4	1175.6	1184.8	1201.8	1205.7
25°	1139.1	1144.3	1156.1	1175.6	1179.6
27.5°	1103.8	1111.6	1126.0	1146.9	1152.1
30°	1067.2	1075.1	1092.0	1114.3	1122.1
32.5°	1028.0	1038.5	1058.1	1082.9	1090.7
35°	987.5	999.3	1020.2	1047.6	1058.1
37.5°	944.4	957.5	982.3	1012.4	1025.4
40°	900.0	915.7	941.8	977.1	991.5
42.5°	855.6	870.0	902.6	940.5	956.2
45°	809.9	826.9	860.8	903.9	919.6
47.5°	762.9	779.8	820.3	866.1	880.4
50°	715.8	732.8	778.5	826.9	843.9
52.5°	664.9	687.1	739.4	787.7	804.7
55°	619.2	640.1	693.6	748.5	766.8
57.5°	566.9	591.7	650.5	708.0	727.6
60°	518.6	544.7	607.4	666.2	685.8
62.5°	469.0	497.7	564.3	624.4	646.6
65°	415.4	450.7	521.2	582.6	604.8
67.5°	367.1	403.6	478.1	540.8	560.4
70°	312.2	356.6	432.4	495.1	517.3
72.5°	265.2	309.6	389.3	450.7	472.9
75°	215.5	263.9	343.6	404.9	424.5
77.5°	165.9	219.5	299.1	346.2	352.7
80°	118.9	175.0	248.2	275.6	284.8
82.5°	83.6	134.5	182.9	201.2	206.4
85°	45.7	88.8	115.0	122.8	122.8
87.5°	19.6	37.9	45.7	47.0	48.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)