

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: P272152

Luminaire Tested: **24CZ2-45HE-S-UNV-L950-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: P272152
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-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4365.0 lumens
Efficiency: N/A
Efficacy: 123.7 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

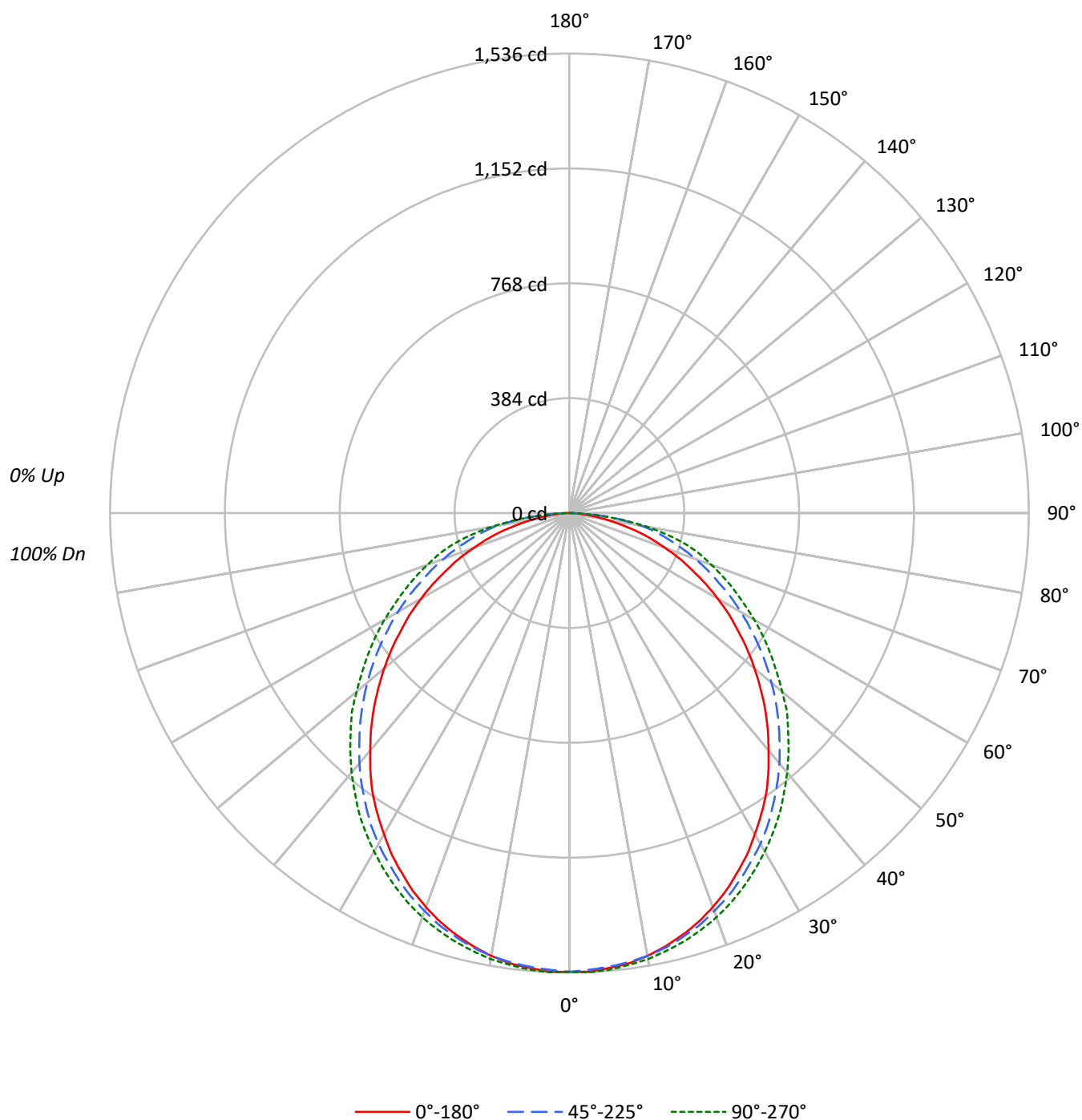
Input Watts (W): 35.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	108	103	99	95	106	101	97	93		97	93	90			93	90	88			89
2	98	90	83	77	96	88	81	76		84	79	74			81	76	72			78
3	89	79	70	64	87	77	69	63		74	67	62			71	66	61			69
4	82	70	61	54	80	68	60	54		66	59	53			63	57	52			61
5	75	62	53	46	73	61	53	46		59	51	46			57	50	45			55
6	70	56	47	40	68	55	47	40		53	46	40			52	45	40			50
7	64	51	42	36	63	50	42	36		48	41	35			47	40	35			46
8	60	46	38	32	58	46	37	32		44	37	32			43	36	31			42
9	56	43	34	29	55	42	34	29		41	34	28			40	33	28			39
10	53	39	31	26	51	39	31	26		38	31	26			37	30	26			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2063	2063	2063
5°	2062	2056	2069
10°	2053	2053	2068
15°	2034	2043	2065
20°	2007	2027	2059
25°	1970	2007	2046
30°	1926	1984	2029
35°	1883	1952	2013
40°	1819	1919	1990
45°	1760	1881	1968
50°	1692	1846	1944
55°	1616	1812	1925
60°	1541	1783	1921
65°	1443	1752	1933
70°	1336	1762	1985
75°	1197	1795	2098
80°	967	1901	2052
85°	727	1669	1627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.2	3.3
10°-20°	414.8	9.5
20°-30°	623.6	14.3
30°-40°	742.8	17.0
40°-50°	760.2	17.4
50°-60°	684.4	15.7
60°-70°	537.5	12.3
70°-80°	348.8	8.0
80°-90°	107.9	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°	1183.5	27.1
0°-40°	1926.3	44.1
0°-60°	3370.9	77.2
0°-90°	4365.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4365.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1534	1534	1534	1534	1534	
5°	1526	1529	1522	1531	1532	145
15°	1460	1464	1467	1479	1482	412
25°	1327	1338	1352	1374	1378	611
35°	1147	1160	1188	1217	1226	715
45°	925	947	989	1026	1034	713
55°	689	720	772	812	821	618
65°	453	488	550	596	607	451
75°	230	274	345	392	404	244
85°	47	87	108	105	105	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1533.5	1533.5	1533.5	1533.5	1533.5
2.5°	1534.8	1534.8	1527.9	1534.8	1536.2
5°	1526.5	1529.3	1522.4	1530.7	1532.1
7.5°	1518.2	1518.2	1514.0	1522.4	1523.7
10°	1503.0	1504.3	1503.0	1512.7	1514.0
12.5°	1483.5	1486.3	1487.7	1497.4	1498.8
15°	1460.0	1464.1	1466.9	1479.4	1482.2
17.5°	1433.6	1437.8	1444.7	1458.6	1461.4
20°	1401.7	1407.3	1415.6	1433.6	1437.8
22.5°	1367.1	1372.6	1386.5	1403.1	1410.1
25°	1326.9	1338.0	1351.8	1374.0	1378.2
27.5°	1286.7	1296.4	1314.4	1338.0	1343.5
30°	1239.5	1254.8	1277.0	1300.5	1306.1
32.5°	1193.8	1209.0	1235.4	1260.3	1267.2
35°	1146.6	1160.5	1188.2	1217.3	1225.7
37.5°	1092.6	1110.6	1141.1	1170.2	1178.5
40°	1035.7	1057.9	1092.6	1123.1	1132.8
42.5°	981.6	1005.2	1039.9	1073.1	1084.2
45°	924.8	947.0	988.6	1026.0	1034.3
47.5°	866.6	891.5	935.9	973.3	987.2
50°	808.3	834.7	881.8	920.6	928.9
52.5°	750.1	777.8	827.7	869.3	873.5
55°	689.1	719.6	772.3	812.5	820.8
57.5°	633.6	660.0	716.8	758.4	768.1
60°	572.6	601.7	662.7	701.6	714.0
62.5°	514.4	544.9	608.7	647.5	658.6
65°	453.4	488.0	550.4	596.2	607.3
67.5°	400.7	434.0	500.5	544.9	556.0
70°	339.7	377.1	447.8	493.6	504.7
72.5°	287.0	325.8	396.5	440.9	457.5
75°	230.2	274.5	345.2	392.4	403.5
77.5°	174.7	226.0	298.1	334.1	334.1
80°	124.8	178.9	245.4	262.0	264.8
82.5°	81.8	134.5	181.6	180.2	180.2
85°	47.1	87.3	108.1	105.4	105.4
87.5°	18.0	36.0	38.8	38.8	37.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)