

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: P295038

Luminaire Tested: **24CZ2-45HE-HRP-UNV-L950-CD1-U**

Issue Date: 12/2/2019

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: P295038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45HE-HRP-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
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: 3227.1 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

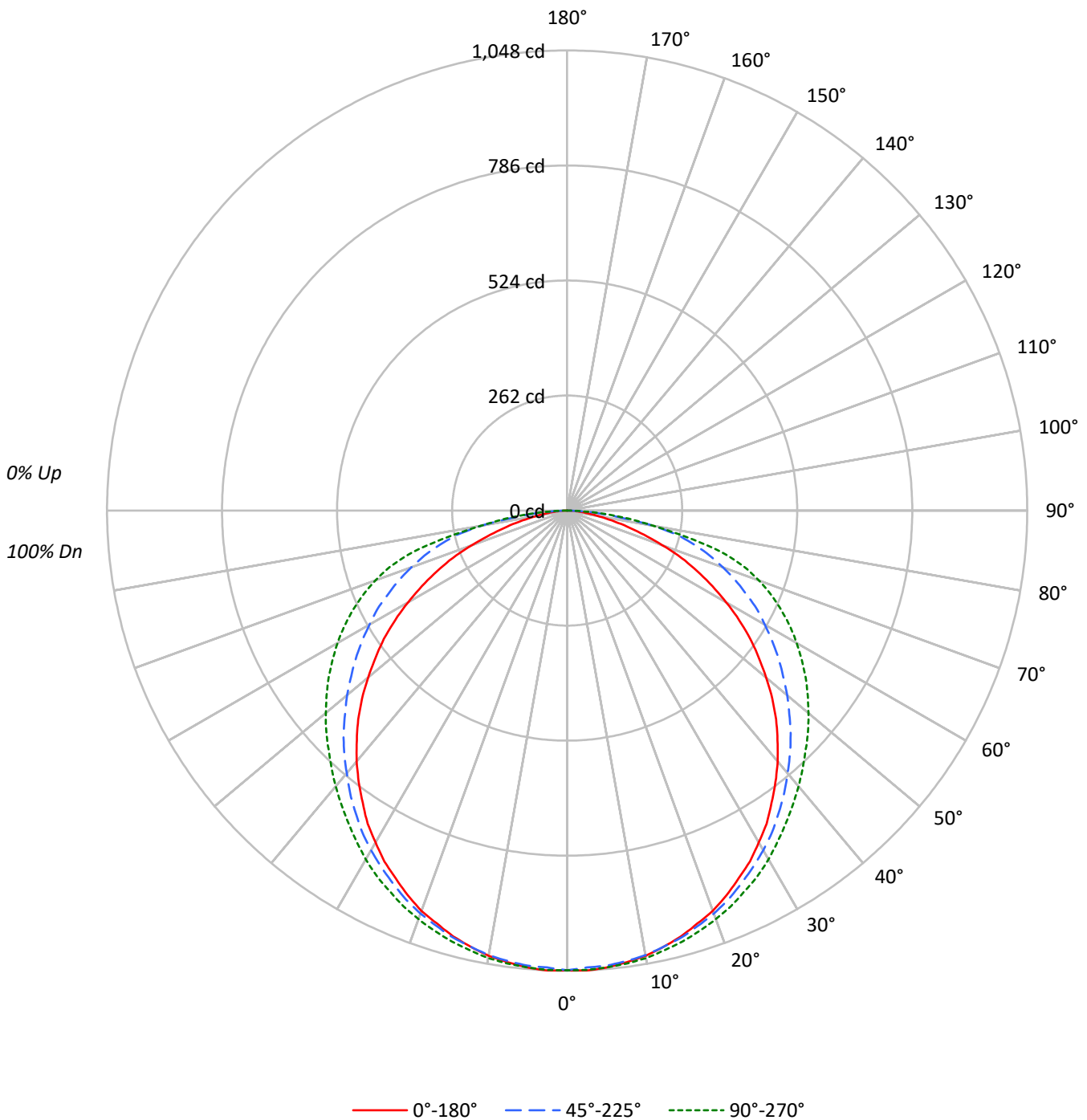
Input Watts (W): 35.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1409	1409	1409
5°	1410	1405	1410
10°	1407	1405	1414
15°	1398	1402	1415
20°	1389	1399	1418
25°	1372	1392	1420
30°	1356	1387	1425
35°	1334	1380	1427
40°	1310	1372	1440
45°	1280	1370	1463
50°	1239	1369	1502
55°	1195	1379	1556
60°	1127	1400	1625
65°	1041	1432	1716
70°	909	1483	1828
75°	738	1559	1889
80°	545	1528	1528
85°	417	1127	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	3.1
10°-20°	284.8	8.8
20°-30°	433.6	13.4
30°-40°	526.5	16.3
40°-50°	556.3	17.2
50°-60°	524.9	16.3
60°-70°	436.4	13.5
70°-80°	287.1	8.9
80°-90°	78.3	2.4
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°	817.6	25.3
0°-40°	1344.1	41.7
0°-60°	2425.3	75.2
0°-90°	3227.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3227.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1047	1047	1047	1047	1047	
5°	1044	1044	1040	1044	1044	99
15°	1004	1005	1006	1016	1016	283
25°	924	930	938	954	956	426
35°	812	821	840	862	869	508
45°	673	686	720	755	769	518
55°	509	531	588	643	663	454
65°	327	365	450	516	539	323
75°	142	207	300	355	363	153
85°	27	59	73	81	82	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1047.0	1047.0	1047.0	1047.0	1047.0
2.5°	1048.4	1047.0	1041.6	1047.0	1047.0
5°	1044.3	1044.3	1040.3	1044.3	1044.3
7.5°	1037.6	1037.6	1034.9	1040.3	1040.3
10°	1029.5	1029.5	1028.1	1034.9	1034.9
12.5°	1017.3	1018.7	1017.3	1025.4	1025.4
15°	1003.8	1005.1	1006.5	1016.0	1016.0
17.5°	986.2	988.9	991.6	1002.4	1003.8
20°	970.0	971.4	976.8	988.9	990.3
22.5°	948.4	952.5	959.2	971.4	975.4
25°	924.1	929.5	937.6	953.8	956.5
27.5°	901.1	905.2	916.0	933.5	938.9
30°	872.7	879.5	893.0	910.6	917.3
32.5°	845.7	852.5	868.7	887.6	893.0
35°	812.0	821.4	840.3	861.9	868.7
37.5°	779.5	789.0	812.0	836.3	844.4
40°	745.8	756.6	780.9	809.3	820.1
42.5°	709.3	724.1	751.2	782.2	794.4
45°	672.8	686.3	720.1	755.2	768.7
47.5°	633.6	649.8	686.3	728.2	744.4
50°	591.7	612.0	653.9	699.8	717.4
52.5°	549.9	572.8	620.1	671.4	690.4
55°	509.3	530.9	587.7	643.1	663.3
57.5°	464.7	491.8	553.9	613.4	633.6
60°	418.8	448.5	520.1	582.3	603.9
62.5°	372.9	406.7	487.7	549.9	572.8
65°	326.9	364.8	449.9	516.1	539.1
67.5°	282.4	324.2	414.8	481.0	503.9
70°	231.0	283.7	376.9	441.8	464.7
72.5°	183.7	244.5	340.5	401.2	421.5
75°	141.9	206.7	299.9	355.3	363.4
77.5°	104.0	168.9	258.0	277.0	278.3
80°	70.3	135.1	197.2	194.5	197.2
82.5°	45.9	101.3	124.3	139.2	140.5
85°	27.0	59.4	73.0	81.1	82.4
87.5°	13.5	20.3	25.7	27.0	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)