

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: P274802

Luminaire Tested: **24CZ2-45HE-RDP-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: P274802
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45HE-RDP-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 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: 2794.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

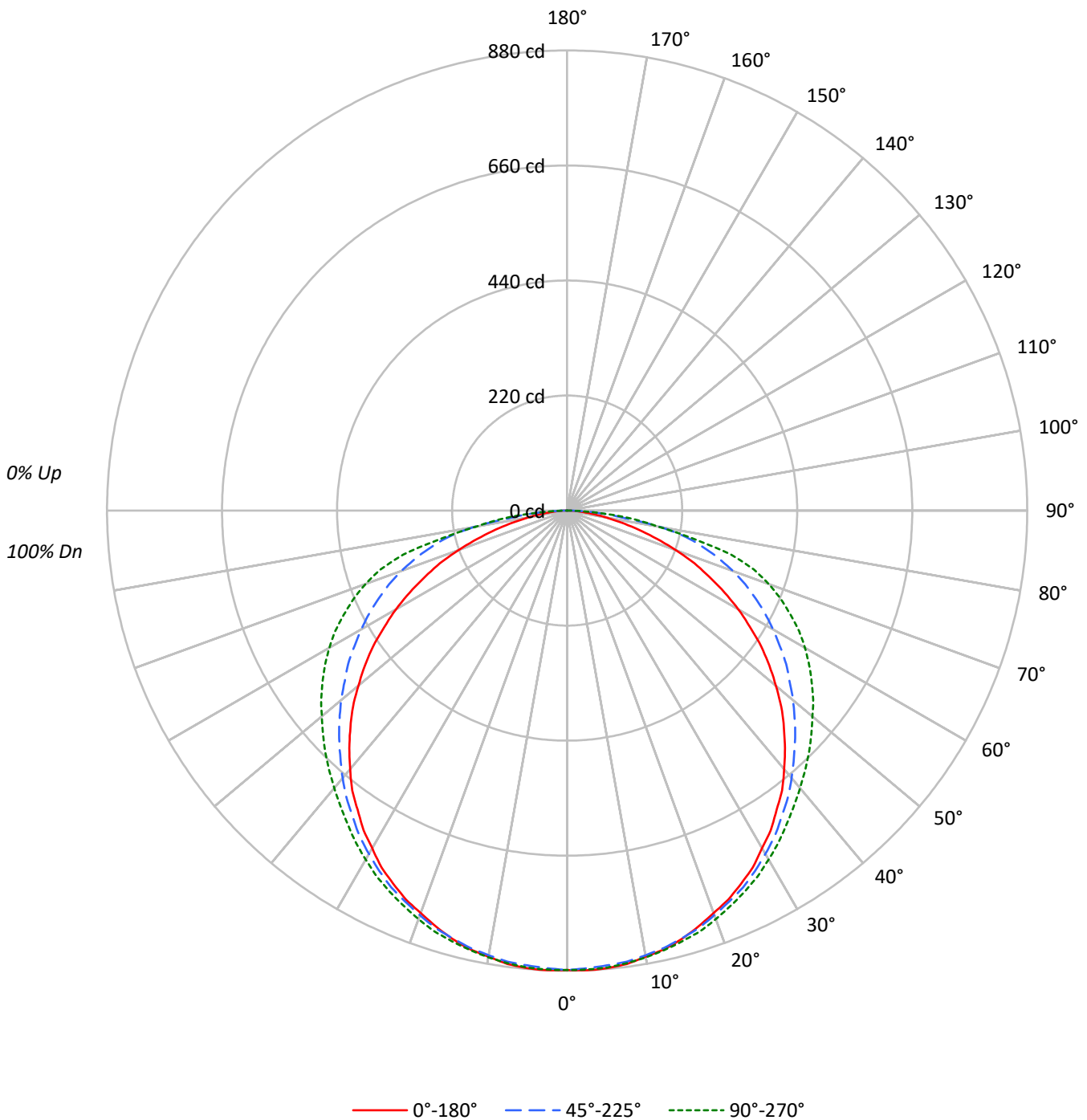
Input Watts (W): 35.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1182	1182	1182
5°	1187	1179	1185
10°	1183	1180	1185
15°	1181	1180	1187
20°	1173	1179	1191
25°	1169	1181	1193
30°	1158	1178	1197
35°	1147	1175	1202
40°	1134	1173	1217
45°	1115	1173	1245
50°	1091	1181	1282
55°	1063	1200	1339
60°	1018	1223	1413
65°	953	1266	1500
70°	867	1325	1614
75°	735	1398	1686
80°	580	1406	1364
85°	428	1070	1198



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	3.0
10°-20°	239.9	8.6
20°-30°	366.8	13.1
30°-40°	448.4	16.0
40°-50°	477.9	17.1
50°-60°	457.0	16.4
60°-70°	387.1	13.9
70°-80°	260.2	9.3
80°-90°	73.4	2.6
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°	690.0	24.7
0°-40°	1138.5	40.7
0°-60°	2073.3	74.2
0°-90°	2794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	879	877	873	877	877	83
15°	848	848	847	854	852	239
25°	787	790	796	802	804	363
35°	698	704	715	729	732	438
45°	586	596	617	643	654	452
55°	453	470	511	552	571	404
65°	299	330	398	450	471	297
75°	141	193	269	315	324	151
85°	28	57	69	75	78	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	878.6	878.6	878.6	878.6	878.6
2.5°	880.0	880.0	875.9	878.6	878.6
5°	878.6	877.2	873.1	877.2	877.2
7.5°	874.5	873.1	870.3	874.5	873.1
10°	866.2	866.2	863.4	867.5	867.5
12.5°	859.2	857.8	856.5	862.0	860.6
15°	848.1	848.1	846.8	853.7	852.3
17.5°	834.3	835.7	837.1	842.6	844.0
20°	819.0	821.8	823.2	831.5	831.5
22.5°	805.2	806.6	809.3	817.7	817.7
25°	787.2	789.9	795.5	802.4	803.8
27.5°	769.2	770.5	777.5	787.2	788.6
30°	745.6	749.7	758.1	769.2	770.5
32.5°	724.8	729.0	738.7	749.7	752.5
35°	698.5	704.0	715.1	729.0	731.7
37.5°	674.9	679.1	692.9	708.2	712.3
40°	645.8	654.1	668.0	686.0	692.9
42.5°	616.7	625.0	641.7	665.2	673.5
45°	586.2	595.9	616.7	643.0	654.1
47.5°	555.7	566.8	590.4	620.9	633.3
50°	521.1	534.9	564.0	598.7	612.5
52.5°	487.8	504.5	536.3	575.1	593.1
55°	453.2	469.8	511.4	551.6	571.0
57.5°	414.4	436.5	482.3	528.0	548.8
60°	378.3	399.1	454.6	504.5	525.2
62.5°	339.5	367.3	426.8	479.5	500.3
65°	299.3	329.8	397.7	450.4	471.2
67.5°	263.3	296.6	368.6	421.3	442.1
70°	220.4	261.9	336.8	389.4	410.2
72.5°	180.2	225.9	303.5	354.8	374.2
75°	141.4	192.6	268.9	314.6	324.3
77.5°	105.3	159.4	232.8	252.2	245.3
80°	74.8	127.5	181.5	171.8	176.0
82.5°	48.5	97.0	112.3	127.5	131.7
85°	27.7	56.8	69.3	74.8	77.6
87.5°	12.5	20.8	27.7	27.7	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)