

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: P274741

Luminaire Tested: **22CZ2-24HE-RDP-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: P274741
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-RDP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1381.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

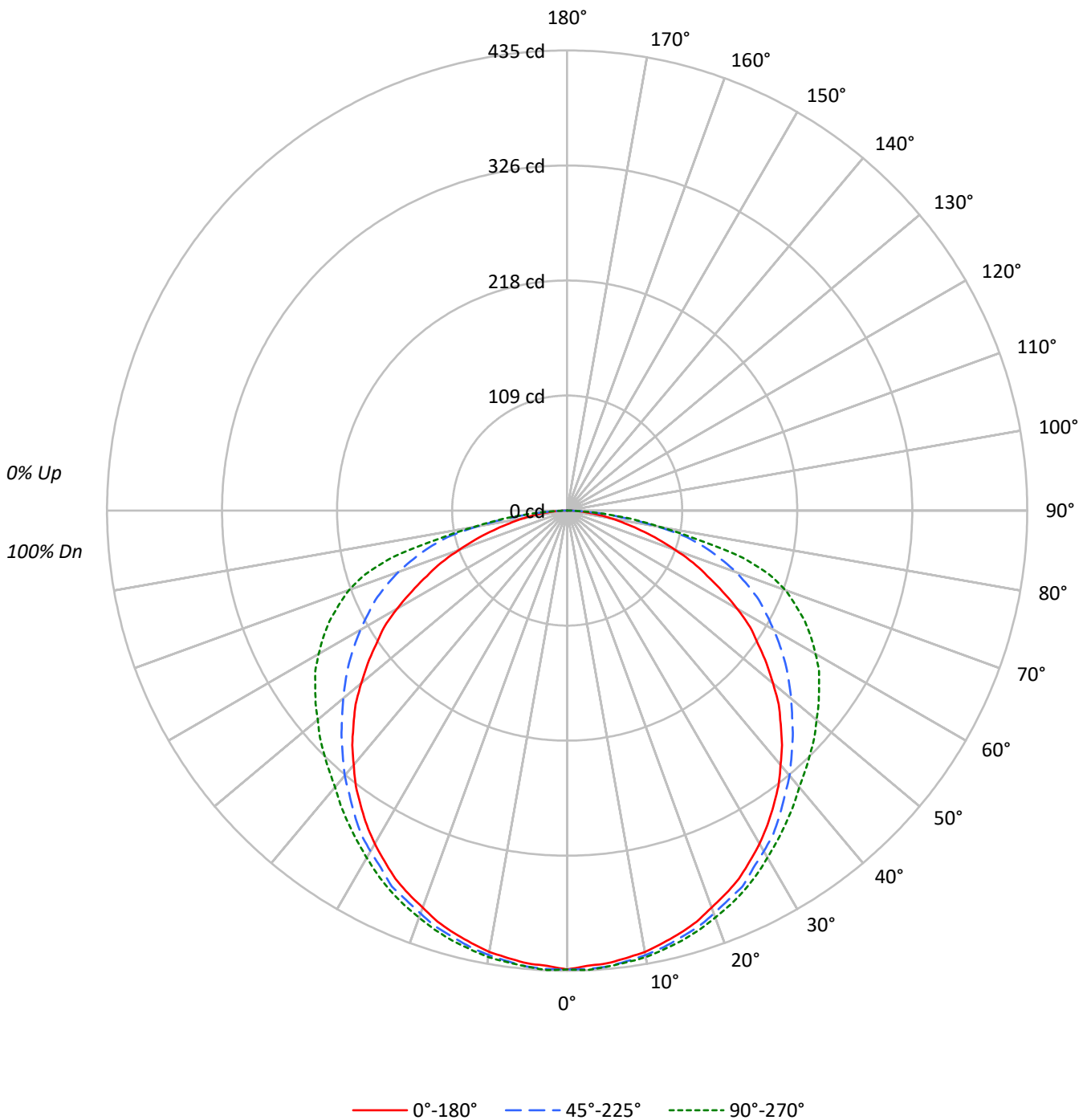
Input Watts (W): 19.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	1167	1167	1167
5°	1161	1169	1169
10°	1157	1166	1171
15°	1152	1163	1172
20°	1143	1161	1172
25°	1140	1164	1176
30°	1130	1155	1177
35°	1118	1151	1185
40°	1103	1149	1199
45°	1087	1148	1237
50°	1063	1157	1289
55°	1034	1182	1363
60°	1001	1214	1460
65°	932	1274	1578
70°	855	1335	1726
75°	750	1405	1785
80°	646	1339	1401
85°	565	973	1065



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	3.0
10°-20°	117.8	8.5
20°-30°	179.8	13.0
30°-40°	219.5	15.9
40°-50°	234.7	17.0
50°-60°	226.5	16.4
60°-70°	195.0	14.1
70°-80°	131.9	9.6
80°-90°	34.8	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°	338.6	24.5
0°-40°	558.1	40.4
0°-60°	1019.3	73.8
0°-90°	1381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	434	434	434	434	434	
5°	430	431	433	433	433	41
15°	414	414	418	420	421	117
25°	384	386	392	394	396	177
35°	340	343	350	358	361	213
45°	286	291	302	317	325	220
55°	220	228	252	277	291	198
65°	146	160	200	232	248	145
75°	72	96	135	162	172	77
85°	18	25	32	32	34	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	433.8	433.8	433.8	433.8	433.8
2.5°	430.7	431.8	433.8	433.8	434.8
5°	429.7	430.7	432.8	432.8	432.8
7.5°	426.7	427.7	429.7	430.7	430.7
10°	423.6	424.7	426.7	427.7	428.7
12.5°	418.6	419.6	422.6	424.7	424.7
15°	413.5	414.5	417.5	419.6	420.6
17.5°	407.4	409.4	412.5	414.5	415.5
20°	399.3	401.3	405.4	408.4	409.4
22.5°	392.1	394.2	398.2	401.3	403.3
25°	384.0	386.0	392.1	394.2	396.2
27.5°	373.9	375.9	381.0	385.0	388.1
30°	363.7	365.7	371.8	376.9	378.9
32.5°	352.5	355.6	362.7	366.7	369.8
35°	340.3	343.4	350.5	357.6	360.7
37.5°	328.1	331.2	338.3	347.4	351.5
40°	313.9	318.0	327.1	339.3	341.3
42.5°	300.7	305.8	313.9	328.1	333.2
45°	285.5	290.6	301.7	317.0	325.1
47.5°	271.2	276.3	288.5	306.8	317.0
50°	254.0	261.1	276.3	297.7	307.8
52.5°	237.7	243.8	264.1	287.5	299.7
55°	220.5	227.6	251.9	277.3	290.6
57.5°	205.2	211.3	238.7	267.2	282.4
60°	185.9	194.0	225.5	256.0	271.2
62.5°	165.6	177.8	212.3	243.8	260.1
65°	146.3	160.5	200.1	231.6	247.9
67.5°	129.0	144.3	184.9	218.4	233.7
70°	108.7	128.0	169.7	202.2	219.4
72.5°	90.4	111.8	152.4	184.9	200.1
75°	72.1	95.5	135.1	162.5	171.7
77.5°	55.9	78.2	115.8	123.9	125.0
80°	41.7	62.0	86.4	87.4	90.4
82.5°	28.4	43.7	55.9	61.0	62.0
85°	18.3	25.4	31.5	32.5	34.5
87.5°	8.1	9.1	11.2	10.2	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)