

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: P274745

Luminaire Tested: **22CZ2-24-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: P274745  
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: 22CZ2-24-RDP-UNV-L940-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (56) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

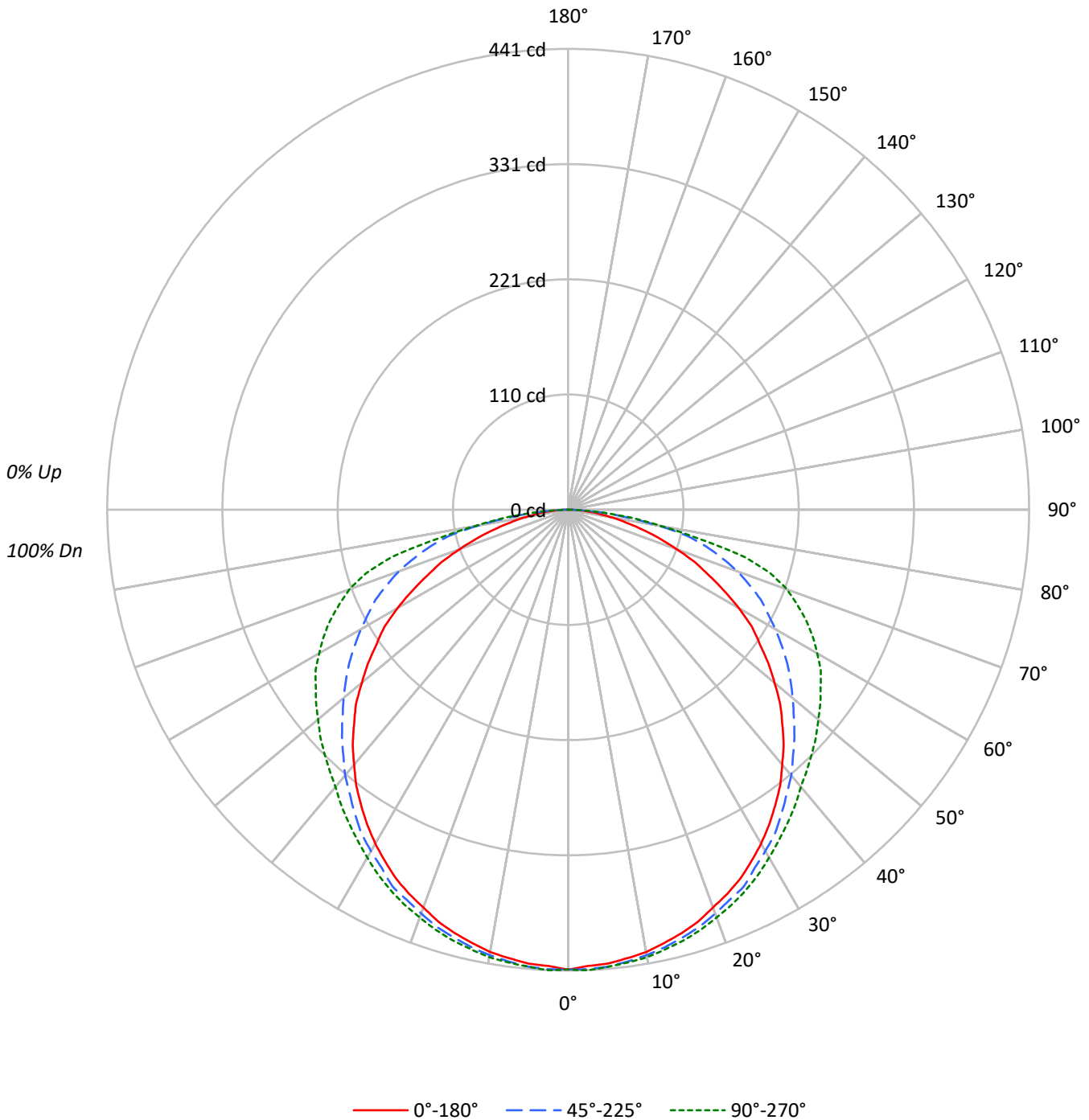
Lumens per Lamp: N/A  
Luminaire Lumens: 1401.0 lumens  
Efficiency: N/A  
Efficacy: 64.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.9  
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°	1184	1184	1184
5°	1178	1186	1186
10°	1174	1183	1188
15°	1169	1180	1189
20°	1160	1178	1189
25°	1157	1181	1193
30°	1147	1172	1194
35°	1134	1168	1202
40°	1119	1166	1216
45°	1102	1165	1255
50°	1079	1173	1307
55°	1049	1199	1383
60°	1015	1231	1481
65°	945	1293	1601
70°	868	1354	1751
75°	761	1425	1811
80°	656	1358	1421
85°	574	985	1081



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.6	3.0
10°-20°	119.5	8.5
20°-30°	182.4	13.0
30°-40°	222.7	15.9
40°-50°	238.1	17.0
50°-60°	229.8	16.4
60°-70°	197.8	14.1
70°-80°	133.8	9.6
80°-90°	35.3	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°	343.5	24.5
0°-40°	566.2	40.4
0°-60°	1034.1	73.8
0°-90°	1401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1401.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	436	437	439	439	439	41
15°	420	420	424	426	427	118
25°	390	392	398	400	402	179
35°	345	348	356	363	366	216
45°	290	295	306	322	330	224
55°	224	231	256	281	295	200
65°	148	163	203	235	252	148
75°	73	97	137	165	174	79
85°	19	26	32	33	35	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	440.1	440.1	440.1	440.1	440.1
2.5°	437.0	438.0	440.1	440.1	441.1
5°	436.0	437.0	439.0	439.0	439.0
7.5°	432.9	433.9	436.0	437.0	437.0
10°	429.8	430.8	432.9	433.9	434.9
12.5°	424.6	425.6	428.7	430.8	430.8
15°	419.5	420.5	423.6	425.6	426.7
17.5°	413.3	415.3	418.4	420.5	421.5
20°	405.0	407.1	411.2	414.3	415.3
22.5°	397.8	399.9	404.0	407.1	409.2
25°	389.6	391.6	397.8	399.9	401.9
27.5°	379.3	381.3	386.5	390.6	393.7
30°	369.0	371.0	377.2	382.4	384.4
32.5°	357.6	360.7	367.9	372.1	375.1
35°	345.3	348.4	355.6	362.8	365.9
37.5°	332.9	336.0	343.2	352.5	356.6
40°	318.5	322.6	331.9	344.2	346.3
42.5°	305.1	310.2	318.5	332.9	338.0
45°	289.6	294.8	306.1	321.6	329.8
47.5°	275.2	280.3	292.7	311.2	321.6
50°	257.7	264.9	280.3	302.0	312.3
52.5°	241.2	247.4	268.0	291.7	304.0
55°	223.6	230.9	255.6	281.4	294.8
57.5°	208.2	214.4	242.2	271.1	286.5
60°	188.6	196.9	228.8	259.7	275.2
62.5°	168.0	180.4	215.4	247.4	263.8
65°	148.4	162.8	203.0	235.0	251.5
67.5°	130.9	146.3	187.6	221.6	237.0
70°	110.3	129.9	172.1	205.1	222.6
72.5°	91.7	113.4	154.6	187.6	203.0
75°	73.2	96.9	137.1	164.9	174.2
77.5°	56.7	79.4	117.5	125.7	126.8
80°	42.3	62.9	87.6	88.6	91.7
82.5°	28.9	44.3	56.7	61.8	62.9
85°	18.6	25.8	31.9	33.0	35.0
87.5°	8.2	9.3	11.3	10.3	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)