

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: P274753

Luminaire Tested: **22CZ2-32-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: P274753  
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: 22CZ2-32-RDP-UNV-L940-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (98) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1875.0 lumens  
Efficiency: N/A  
Efficacy: 70.2 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

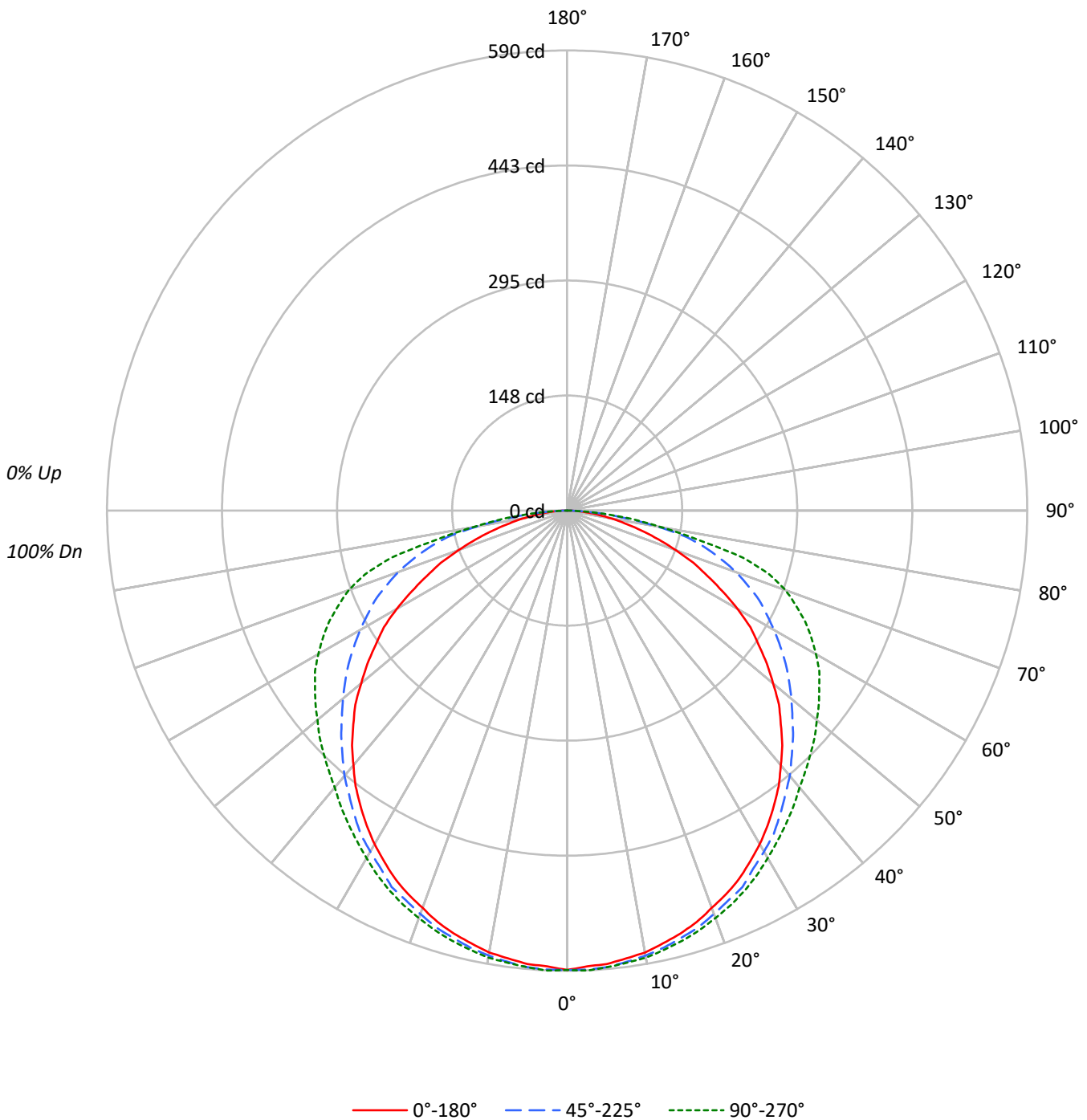
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1585	1585	1585
5°	1576	1587	1587
10°	1572	1583	1591
15°	1564	1579	1591
20°	1552	1576	1592
25°	1548	1581	1597
30°	1534	1569	1599
35°	1518	1563	1609
40°	1497	1560	1628
45°	1475	1559	1680
50°	1443	1571	1750
55°	1404	1605	1851
60°	1358	1648	1982
65°	1265	1730	2143
70°	1161	1812	2344
75°	1018	1907	2424
80°	877	1816	1903
85°	766	1321	1448



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.7	3.0
10°-20°	160.0	8.5
20°-30°	244.0	13.0
30°-40°	298.0	15.9
40°-50°	318.6	17.0
50°-60°	307.5	16.4
60°-70°	264.7	14.1
70°-80°	179.1	9.6
80°-90°	47.3	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°	459.7	24.5
0°-40°	757.7	40.4
0°-60°	1383.9	73.8
0°-90°	1875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1875.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	584	585	588	588	588	55
15°	561	563	567	570	571	158
25°	521	524	532	535	538	240
35°	462	466	476	486	490	289
45°	388	394	410	430	441	299
55°	299	309	342	377	394	268
65°	199	218	272	314	337	198
75°	98	130	183	221	233	105
85°	25	34	43	44	47	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	589.0	589.0	589.0	589.0	589.0
2.5°	584.8	586.2	589.0	589.0	590.3
5°	583.5	584.8	587.6	587.6	587.6
7.5°	579.3	580.7	583.5	584.8	584.8
10°	575.2	576.6	579.3	580.7	582.1
12.5°	568.3	569.7	573.8	576.6	576.6
15°	561.4	562.8	566.9	569.7	571.0
17.5°	553.1	555.9	560.0	562.8	564.1
20°	542.1	544.8	550.3	554.5	555.9
22.5°	532.4	535.2	540.7	544.8	547.6
25°	521.4	524.1	532.4	535.2	537.9
27.5°	507.6	510.3	517.2	522.8	526.9
30°	493.8	496.6	504.8	511.7	514.5
32.5°	478.6	482.8	492.4	497.9	502.1
35°	462.1	466.2	475.9	485.5	489.7
37.5°	445.5	449.7	459.3	471.7	477.2
40°	426.2	431.7	444.1	460.7	463.5
42.5°	408.3	415.2	426.2	445.5	452.4
45°	387.6	394.5	409.7	430.3	441.4
47.5°	368.3	375.2	391.7	416.6	430.3
50°	344.8	354.5	375.2	404.1	417.9
52.5°	322.8	331.0	358.6	390.3	406.9
55°	299.3	309.0	342.1	376.6	394.5
57.5°	278.6	286.9	324.1	362.8	383.5
60°	252.4	263.5	306.2	347.6	368.3
62.5°	224.8	241.4	288.3	331.0	353.1
65°	198.6	217.9	271.7	314.5	336.6
67.5°	175.2	195.9	251.0	296.6	317.2
70°	147.6	173.8	230.3	274.5	297.9
72.5°	122.8	151.7	206.9	251.0	271.7
75°	97.9	129.7	183.4	220.7	233.1
77.5°	75.9	106.2	157.2	168.3	169.7
80°	56.6	84.1	117.2	118.6	122.8
82.5°	38.6	59.3	75.9	82.8	84.1
85°	24.8	34.5	42.8	44.1	46.9
87.5°	11.0	12.4	15.2	13.8	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)