

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: P31447

Luminaire Tested: **2ALNG-232T8-UNV-EB81-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P31447
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2ALNG-232T8-UNV-EB81-U
Description: METALUX 2X4 ARCLINE LFL FIXTURE WITH LENS
Light Source: (2) BIPIN T8 DOUBLE ENDED 32W LINEAR FLUORESCENT LAMP 3500K, 2950 EA
Ballast/Driver: -
GE232-MAX-N/ULTRA

Summary

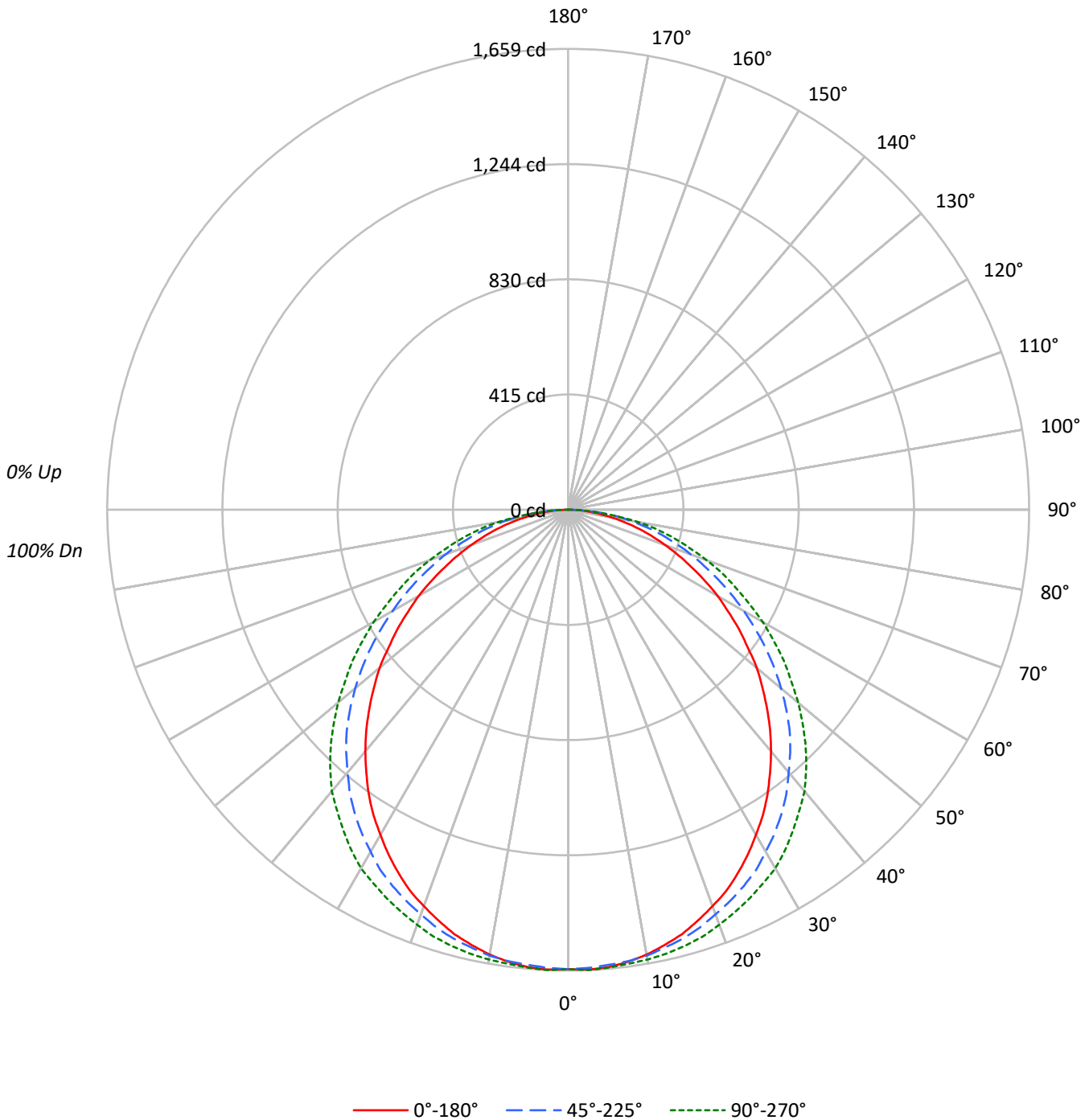
Lumens per Lamp: 2950 (2 lamps)
Luminaire Lumens: 4809.7 lumens
Efficiency: 81.5%
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.33 / 1.39
Luminous Opening: Rectangular (W 1.77' x L: 3.77' x H: 0')
CIE Type: Direct

Input Watts (W): 50.6
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	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	97	97	97	97	95	95	95	95	91	91	91	87	87	87	83	83	83	82																												
1	88	84	81	78	86	83	79	76	79	76	74	76	74	72	73	71	70	68																												
2	80	73	68	63	78	72	67	62	69	65	61	66	63	59	64	61	58	56																												
3	73	64	58	52	71	63	57	52	61	55	51	58	54	50	56	52	49	47																												
4	67	57	50	44	65	56	49	44	54	48	43	52	47	43	50	46	42	40																												
5	62	51	44	38	60	50	43	38	48	42	37	47	41	37	45	40	37	35																												
6	57	46	38	33	55	45	38	33	44	37	33	42	37	32	41	36	32	30																												
7	53	42	34	29	51	41	34	29	40	33	29	38	33	29	37	32	29	27																												
8	49	38	31	26	48	37	31	26	36	30	26	35	30	26	34	29	26	24																												
9	46	35	28	23	45	34	28	23	33	27	23	32	27	23	32	27	23	22																												
10	43	32	26	21	42	32	25	21	31	25	21	30	25	21	29	24	21	19																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2666	2666	2666
5°	2675	2662	2678
10°	2661	2668	2691
15°	2640	2667	2712
20°	2606	2659	2728
25°	2568	2659	2746
30°	2515	2647	2775
35°	2462	2633	2775
40°	2390	2597	2784
45°	2307	2569	2756
50°	2222	2508	2708
55°	2108	2437	2661
60°	2002	2353	2605
65°	1869	2273	2540
70°	1749	2215	2498
75°	1626	2167	2441
80°	1467	2126	2367
85°	1332	1924	1942



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	156.9	3.3	2.7	0°	1654	1654	1654	1654	1654	
10°-20°	451.7	9.4	7.7	5°	1653	1650	1645	1654	1655	157
20°-30°	689.2	14.3	11.7	15°	1582	1585	1598	1613	1625	446
30°-40°	834.1	17.3	14.1	25°	1444	1460	1495	1534	1544	665
40°-50°	861.7	17.9	14.6	35°	1251	1273	1338	1393	1410	781
50°-60°	766.7	15.9	13.0	45°	1012	1049	1127	1188	1209	781
60°-70°	583.4	12.1	9.9	55°	750	790	867	923	947	671
70°-80°	356.0	7.4	6.0	65°	490	529	596	648	666	488
80°-90°	109.9	2.3	1.9	75°	261	288	348	384	392	276
90°-100°	0.0	0.0	0.0	85°	72	94	104	104	105	80
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1297.9	27.0	22.0							
0°-40°	2132.0	44.3	36.1							
0°-60°	3760.4	78.2	63.7							
0°-90°	4809.7	100.0	81.5							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	4809.7	100.0	81.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1654	1654	1654	1654	1654
2.5°	1657	1654	1651	1654	1659
5°	1653	1650	1645	1654	1655
7.5°	1642	1639	1640	1644	1649
10°	1626	1627	1630	1638	1644
12.5°	1605	1609	1614	1627	1637
15°	1582	1585	1598	1613	1625
17.5°	1551	1562	1577	1600	1611
20°	1519	1530	1550	1578	1590
22.5°	1486	1497	1524	1559	1568
25°	1444	1460	1495	1534	1544
27.5°	1400	1420	1463	1504	1517
30°	1351	1374	1422	1471	1491
32.5°	1304	1325	1382	1434	1453
35°	1251	1273	1338	1393	1410
37.5°	1193	1222	1290	1348	1366
40°	1136	1169	1234	1298	1323
42.5°	1075	1110	1183	1244	1268
45°	1012	1049	1127	1188	1209
47.5°	948	987	1065	1126	1145
50°	886	921	1000	1061	1080
52.5°	814	859	935	990	1011
55°	750	790	867	923	947
57.5°	683	727	798	857	876
60°	621	660	730	786	808
62.5°	555	591	664	719	735
65°	490	529	596	648	666
67.5°	430	465	530	584	601
70°	371	404	470	517	530
72.5°	315	343	407	453	458
75°	261	288	348	384	392
77.5°	206	235	286	316	327
80°	158	188	229	252	255
82.5°	110	137	171	172	167
85°	72	94	104	104	105
87.5°	32	41	44	45	47
90°	0	0	0	0	0

(END OF REPORT)