

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 144P116

Luminaire Tested: **SA-232A**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 144P116
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SA-232A
Description: Surface Mount Architectural Wrap with an
extruded acrylic lens.
Light Source: Two - FO32T8/35K - 2800 Lumens ea. - 32 Watts ea.
Ballast/Driver: Magnetek B232I120RH Electronic - L.O.B.F. = 88.22

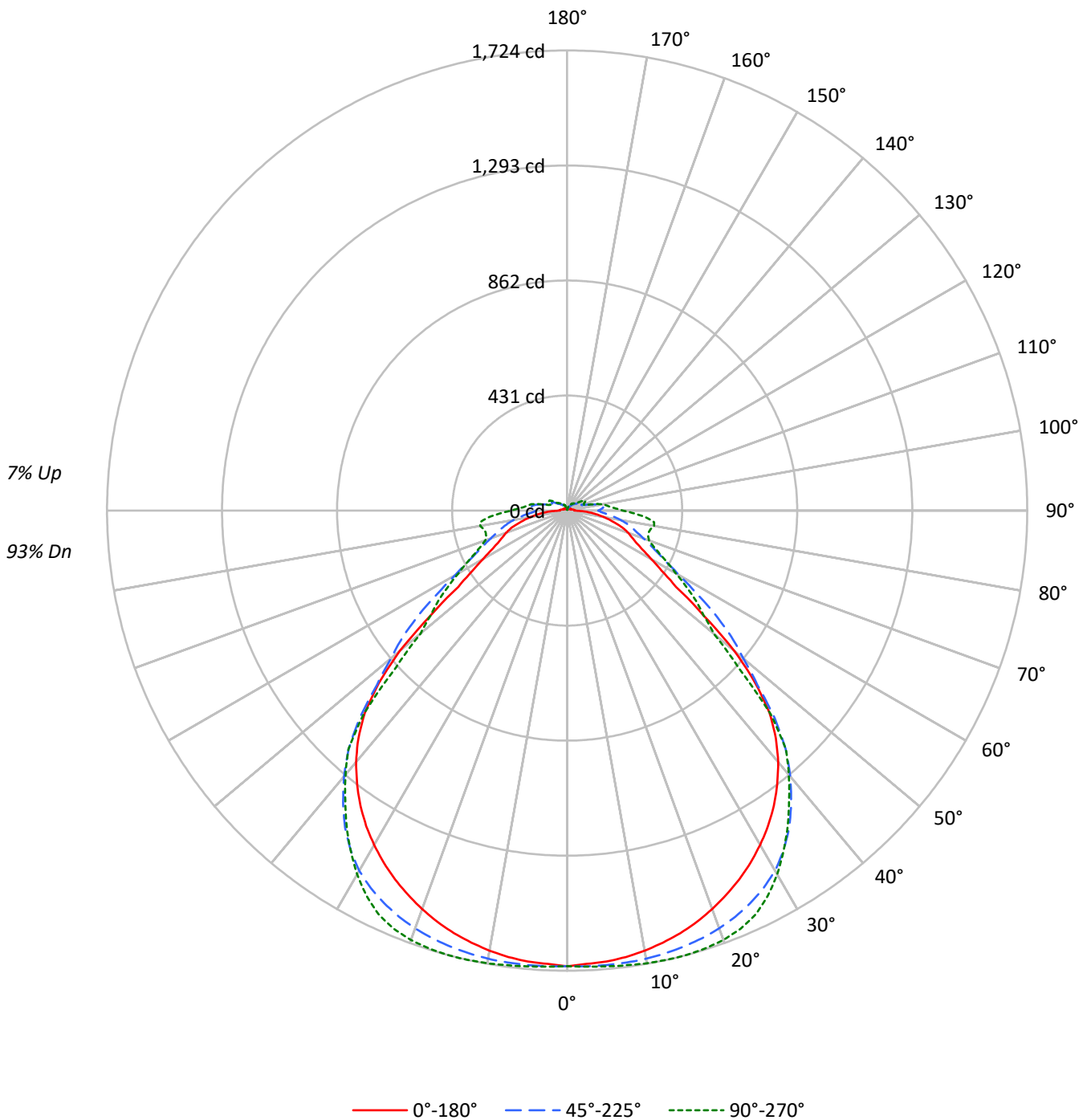
Summary

Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 4815.4 lumens
Efficiency: 86.0%
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.33 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4.07' x H: 0.11')
CIE Type: Direct

Input Watts (W): 57.4
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	101	101	101	101	98	98	98	98	92	92	92	87	87	87	82	82	82	80
1	92	88	84	81	89	85	82	79	81	78	75	76	74	72	72	70	69	67
2	84	77	72	67	81	75	70	65	71	67	63	67	64	61	64	61	59	56
3	77	68	62	56	75	67	60	55	63	58	54	60	56	52	57	54	50	48
4	71	61	54	48	69	60	53	48	57	51	46	54	49	45	52	47	44	42
5	66	55	48	42	63	54	47	42	51	45	41	49	44	40	47	42	39	37
6	61	50	42	37	59	49	42	37	46	40	36	44	39	35	43	38	34	33
7	56	45	38	33	55	44	37	33	42	36	32	41	35	31	39	34	31	29
8	53	41	34	29	51	41	34	29	39	33	29	37	32	28	36	31	28	26
9	49	38	31	27	48	37	31	26	36	30	26	35	29	26	33	29	25	24
10	46	35	29	24	45	34	28	24	33	28	24	32	27	23	31	26	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4921	4921	4921
5°	4896	4899	4907
10°	4876	4898	4932
15°	4855	4905	4979
20°	4826	4917	5024
25°	4788	4915	5020
30°	4737	4881	4887
35°	4659	4744	4663
40°	4522	4485	4401
45°	4251	4043	3903
50°	3550	3420	2799
55°	2406	2938	2512
60°	2007	2355	2228
65°	1840	2070	2055
70°	1901	1975	2045
75°	1946	2007	2400
80°	1990	2098	3216
85°	2203	2202	4045



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	162.8	3.4	2.9	0°	1707	1707	1707	1707	1707	
10°-20°	476.9	9.9	8.5	5°	1696	1702	1709	1713	1714	161
20°-30°	741.6	15.4	13.2	15°	1639	1660	1691	1716	1724	463
30°-40°	887.4	18.4	15.8	25°	1525	1565	1623	1661	1670	703
40°-50°	824.2	17.1	14.7	35°	1350	1397	1450	1449	1441	843
50°-60°	553.8	11.5	9.9	45°	1072	1102	1099	1084	1077	811
60°-70°	372.4	7.7	6.7	55°	498	658	675	562	589	479
70°-80°	268.9	5.6	4.8	65°	286	362	374	419	382	290
80°-90°	191.3	4.0	3.4	75°	193	198	253	306	316	203
90°-100°	121.9	2.5	2.2	85°	88	124	149	253	297	81
100°-110°	77.4	1.6	1.4	90°	27	57	116	201	208	19
110°-120°	53.2	1.1	0.9	95°	26	59	136	161	160	20
120°-130°	37.9	0.8	0.7	105°	14	56	90	91	85	17
130°-140°	22.7	0.5	0.4	115°	15	37	62	72	73	15
140°-150°	13.5	0.3	0.2	125°	11	28	47	55	57	10
150°-160°	6.7	0.1	0.1	135°	9	21	34	38	38	7
160°-170°	2.3	0.0	0.0	145°	7	14	23	29	31	4
170°-180°	0.4	0.0	0.0	155°	6	9	14	20	22	3
0°-30°	1381.3	28.7	24.7	165°	5	6	7	9	11	1
0°-40°	2268.7	47.1	40.5	175°	5	5	4	4	4	0
0°-60°	3646.7	75.7	65.1	180°	4	4	4	4	4	
0°-90°	4479.3	93.0	80.0							
90°-120°	252.5	5.2	4.5							
90°-150°	326.6	6.8	5.8							
90°-180°	336.0	7.0	6.0							
0°-180°	4815.4	100.0	86.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1707	1707	1707	1707	1707
2.5°	1700	1705	1709	1709	1710
5°	1696	1702	1709	1713	1714
7.5°	1687	1696	1708	1716	1718
10°	1674	1687	1705	1718	1722
12.5°	1658	1675	1699	1717	1724
15°	1639	1660	1691	1716	1724
17.5°	1616	1641	1680	1709	1720
20°	1589	1619	1666	1701	1712
22.5°	1558	1594	1647	1685	1696
25°	1525	1565	1623	1661	1670
27.5°	1488	1531	1594	1626	1628
30°	1446	1491	1558	1576	1574
32.5°	1401	1447	1509	1516	1510
35°	1350	1397	1450	1449	1441
37.5°	1293	1340	1379	1377	1366
40°	1230	1274	1300	1300	1292
42.5°	1158	1195	1212	1213	1213
45°	1072	1102	1099	1084	1077
47.5°	957	987	967	915	870
50°	818	861	861	750	717
52.5°	643	753	775	627	644
55°	498	658	675	562	589
57.5°	420	568	571	520	528
60°	365	487	485	488	470
62.5°	320	419	421	458	424
65°	286	362	374	419	382
67.5°	262	308	337	375	350
70°	243	262	304	343	326
72.5°	221	226	275	322	318
75°	193	198	253	306	316
77.5°	165	172	229	292	320
80°	139	154	204	278	331
82.5°	113	142	176	266	329
85°	88	124	149	253	297
87.5°	56	88	127	233	252
90°	27	57	116	201	208
92.5°	27	58	128	183	182
95°	26	59	136	161	160
97.5°	25	59	133	143	149
100°	21	60	122	133	136
102.5°	16	57	106	114	114
105°	14	56	90	91	85
107.5°	17	53	71	70	69
110°	17	46	59	66	66



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	16	39	58	66	67
115°	15	37	62	72	73
117.5°	14	37	66	76	77
120°	12	35	63	73	75
122.5°	11	31	55	65	67
125°	11	28	47	55	57
127.5°	10	26	42	48	48
130°	9	25	39	43	44
132.5°	9	23	36	40	41
135°	9	21	34	38	38
137.5°	8	20	31	36	37
140°	8	18	28	34	35
142.5°	7	16	25	31	33
145°	7	14	23	29	31
147.5°	7	13	20	27	28
150°	7	12	19	25	26
152.5°	6	10	16	22	24
155°	6	9	14	20	22
157.5°	6	8	12	17	19
160°	6	7	11	14	17
162.5°	5	6	9	12	14
165°	5	6	7	9	11
167.5°	5	5	6	8	9
170°	5	5	5	6	7
172.5°	4	5	4	5	5
175°	5	5	4	4	4
177.5°	5	5	4	3	3
180°	4	4	4	4	4

(END OF REPORT)