

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: ITL44647

Luminaire Tested: **STW-432**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44647
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: STW-432
Description: FABRICATED STRIP METAL BALLAST HOUSING, WHITE PAINTED
FABRICATED METAL REFLECTOR AND END PLATES, OPEN SIDES AND
BOTTOM.
Light Source: FOUR 32-WATT F32T8-SPX35 FLUORESCENTS.
Ballast/Driver: MAGNETEK TRIAD B432I120RH (BALLAST FACTOR 88.6%). BALLAST
FACTOR SUPPLIED BY CLIENT.

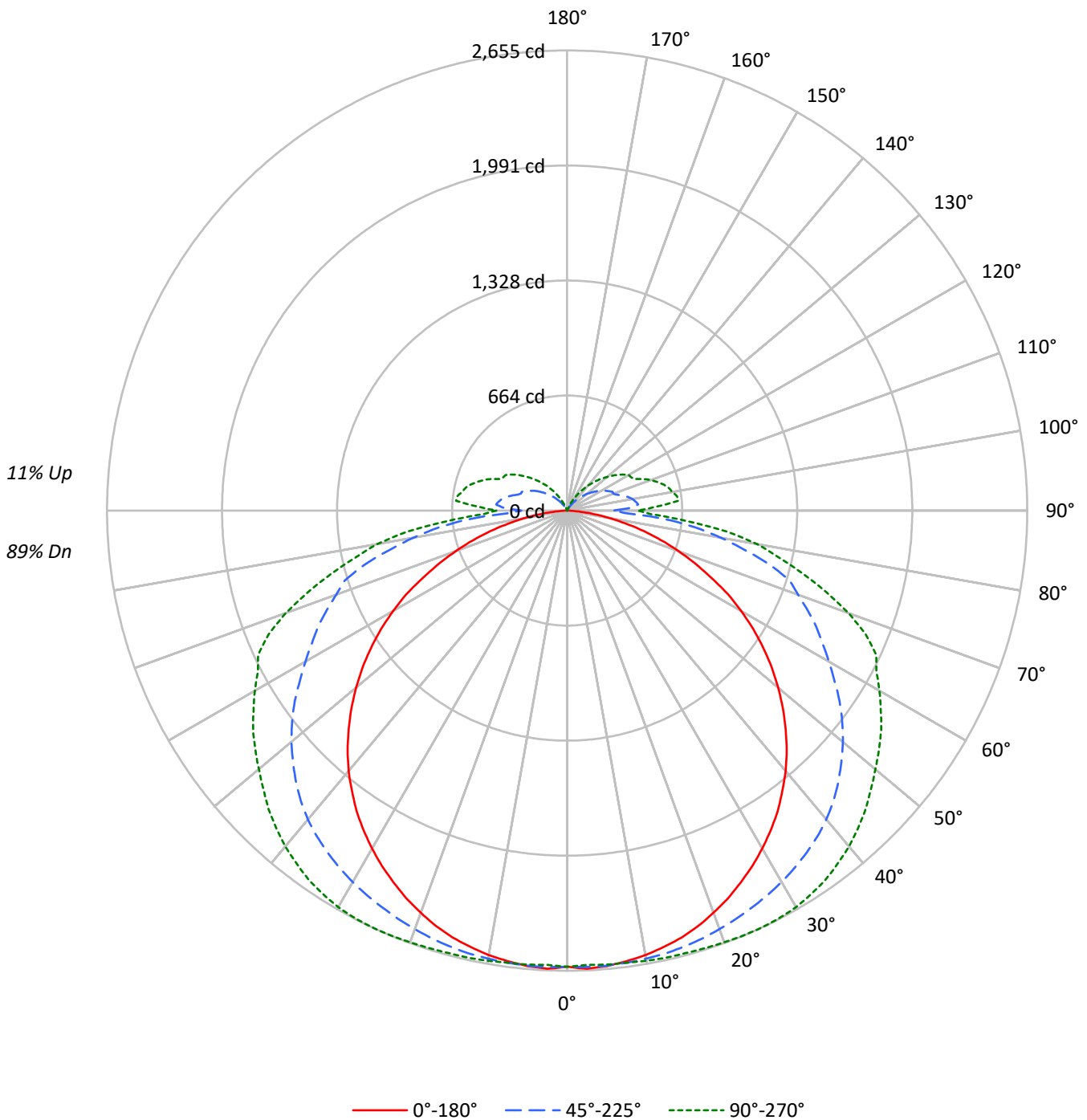
Summary

Lumens per Lamp: 2950 (4 lamps)
Luminaire Lumens: 11456.1 lumens
Efficiency: 97.1%
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.5 / 1.55
Luminous Opening: Rectangular w/ Sides (W: 0.76' x L: 4' x H: 0.14')
CIE Type: Semi-Direct

Input Watts (W): 114.1
Input Voltage (V): NR
Input Current (A_{in}): 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	113	113	113	113	109	109	109	109	102	102	102		96	96	96		90	90	90	87
1	101	96	91	86	97	92	88	84	86	83	79		81	78	75		75	73	71	68
2	91	82	74	68	87	79	72	66	74	68	63		69	64	60		64	61	57	54
3	82	71	62	55	79	68	60	54	64	57	52		60	54	49		56	51	47	45
4	75	62	53	46	71	60	51	45	56	49	43		53	46	41		49	44	40	37
5	68	55	46	39	65	53	45	38	50	42	37		47	40	35		44	38	34	32
6	63	49	40	33	60	48	39	33	45	37	32		42	36	31		40	34	29	27
7	58	44	35	29	56	43	35	29	40	33	28		38	32	27		36	30	26	24
8	54	40	32	26	52	39	31	25	37	30	25		35	28	24		33	27	23	21
9	50	37	28	23	48	36	28	23	34	27	22		32	26	21		30	25	21	19
10	47	34	26	21	45	33	25	20	31	24	20		30	23	19		28	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9314	9314	9314
5°	9344	9243	9196
10°	9302	9190	9188
15°	9259	9176	9242
20°	9185	9178	9376
25°	9103	9219	9572
30°	9022	9308	9790
35°	8938	9419	9987
40°	8814	9549	10169
45°	8631	9632	10349
50°	8409	9702	10546
55°	8134	9753	10881
60°	7756	9800	11257
65°	7159	10051	11920
70°	6456	10386	11992
75°	5572	10637	11574
80°	4257	9926	11276
85°	2284	8547	9271



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	250.9	2.2	2.1	0°	2632	2632	2632	2632	2632	
10°-20°	735.8	6.4	6.2	5°	2638	2638	2636	2623	2629	251
20°-30°	1164.9	10.2	9.9	15°	2550	2574	2605	2628	2643	719
30°-40°	1495.5	13.1	12.7	25°	2368	2436	2526	2616	2655	1092
40°-50°	1674.4	14.6	14.2	35°	2118	2230	2409	2556	2600	1323
50°-60°	1680.8	14.7	14.2	45°	1783	1970	2213	2387	2436	1375
60°-70°	1521.3	13.3	12.9	55°	1382	1665	1919	2139	2212	1234
70°-80°	1149.6	10.0	9.7	65°	917	1266	1586	1863	1967	911
80°-90°	564.3	4.9	4.8	75°	459	830	1213	1396	1409	485
90°-100°	366.0	3.2	3.1	85°	78	392	571	719	693	100
100°-110°	328.4	2.9	2.8	90°	0	110	264	362	407	3
110°-120°	236.4	2.1	2.0	95°	0	164	412	580	643	0
120°-130°	159.6	1.4	1.4	105°	0	120	334	509	578	0
130°-140°	86.7	0.8	0.7	115°	0	75	265	381	430	0
140°-150°	34.5	0.3	0.3	125°	0	34	188	305	361	0
150°-160°	6.3	0.1	0.1	135°	0	6	111	202	246	0
160°-170°	0.7	0.0	0.0	145°	0	3	42	101	134	0
170°-180°	0.1	0.0	0.0	155°	0	3	4	19	36	0
0°-30°	2151.6	18.8	18.2	165°	0	2	2	2	3	0
0°-40°	3647.1	31.8	30.9	175°	0	1	1	1	1	0
0°-60°	7002.4	61.1	59.3	180°	0	0	0	0	0	0
0°-90°	10237.5	89.4	86.8							
90°-120°	930.8	8.1	7.9							
90°-150°	1211.6	10.6	10.3							
90°-180°	1219.0	10.6	10.3							
0°-180°	11456.1	100.0	97.1							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2632	2632	2632	2632	2632
2.5°	2646	2641	2636	2619	2623
5°	2638	2638	2636	2623	2629
7.5°	2622	2627	2631	2626	2631
10°	2604	2615	2625	2628	2637
12.5°	2579	2597	2618	2631	2642
15°	2550	2574	2605	2628	2643
17.5°	2514	2547	2589	2625	2647
20°	2469	2514	2570	2622	2651
22.5°	2423	2476	2549	2620	2654
25°	2368	2436	2526	2616	2655
27.5°	2313	2388	2502	2609	2651
30°	2251	2338	2475	2597	2642
32.5°	2186	2289	2444	2581	2623
35°	2118	2230	2409	2556	2600
37.5°	2039	2168	2371	2522	2566
40°	1962	2105	2327	2483	2530
42.5°	1875	2038	2274	2438	2485
45°	1783	1970	2213	2387	2436
47.5°	1688	1894	2146	2329	2378
50°	1589	1821	2077	2264	2322
52.5°	1488	1746	2001	2199	2268
55°	1382	1665	1919	2139	2212
57.5°	1273	1578	1829	2075	2146
60°	1160	1486	1744	2009	2081
62.5°	1047	1381	1661	1932	2012
65°	917	1266	1586	1863	1967
67.5°	800	1152	1501	1812	1864
70°	682	1027	1417	1695	1726
72.5°	570	917	1347	1550	1569
75°	459	830	1213	1396	1409
77.5°	345	744	1049	1236	1252
80°	249	659	901	1081	1112
82.5°	155	538	748	942	931
85°	78	392	571	719	693
87.5°	21	240	337	489	483
90°	0	110	264	362	407
92.5°	0	170	367	505	513
95°	0	164	412	580	643
97.5°	0	147	398	571	639
100°	0	130	383	554	616
102.5°	0	129	360	534	601
105°	0	120	334	509	578
107.5°	0	108	303	475	547
110°	0	97	284	442	513



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	86	283	401	477
115°	0	75	265	381	430
117.5°	0	65	247	378	416
120°	0	55	228	358	410
122.5°	0	45	210	332	387
125°	0	34	188	305	361
127.5°	0	25	168	280	331
130°	0	17	149	254	303
132.5°	0	11	130	228	274
135°	0	6	111	202	246
137.5°	0	4	93	175	218
140°	0	3	75	152	189
142.5°	0	3	58	125	161
145°	0	3	42	101	134
147.5°	0	3	27	78	108
150°	0	3	15	57	82
152.5°	0	3	7	36	59
155°	0	3	4	19	36
157.5°	0	3	4	8	16
160°	0	2	4	4	6
162.5°	0	2	4	3	4
165°	0	2	2	2	3
167.5°	0	2	2	2	3
170°	0	2	2	2	2
172.5°	0	1	1	1	2
175°	0	1	1	1	1
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)