

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: ITL44161

Luminaire Tested: **STW-396HO**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44161
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: STW-396HO
Description: WHITE PAINTED FABRICATED METAL BALLAST HOUSING WITH FLAT
WHITE PAINTED REFLECTOR AND WHITE PAINTED END PLATES.
Light Source: THREE 95-WATT F96T12/CW/HO/WM FLUORESCENTS.
Ballast/Driver: ONE MAGNETEK UNIVERSAL 480-SLH-TC-P (BALLAST FACTOR 90.8 %),
ONE MAGNETEK UNIVERSAL 481-LH-TC-P (BALLAST FACTOR 83.5 %).

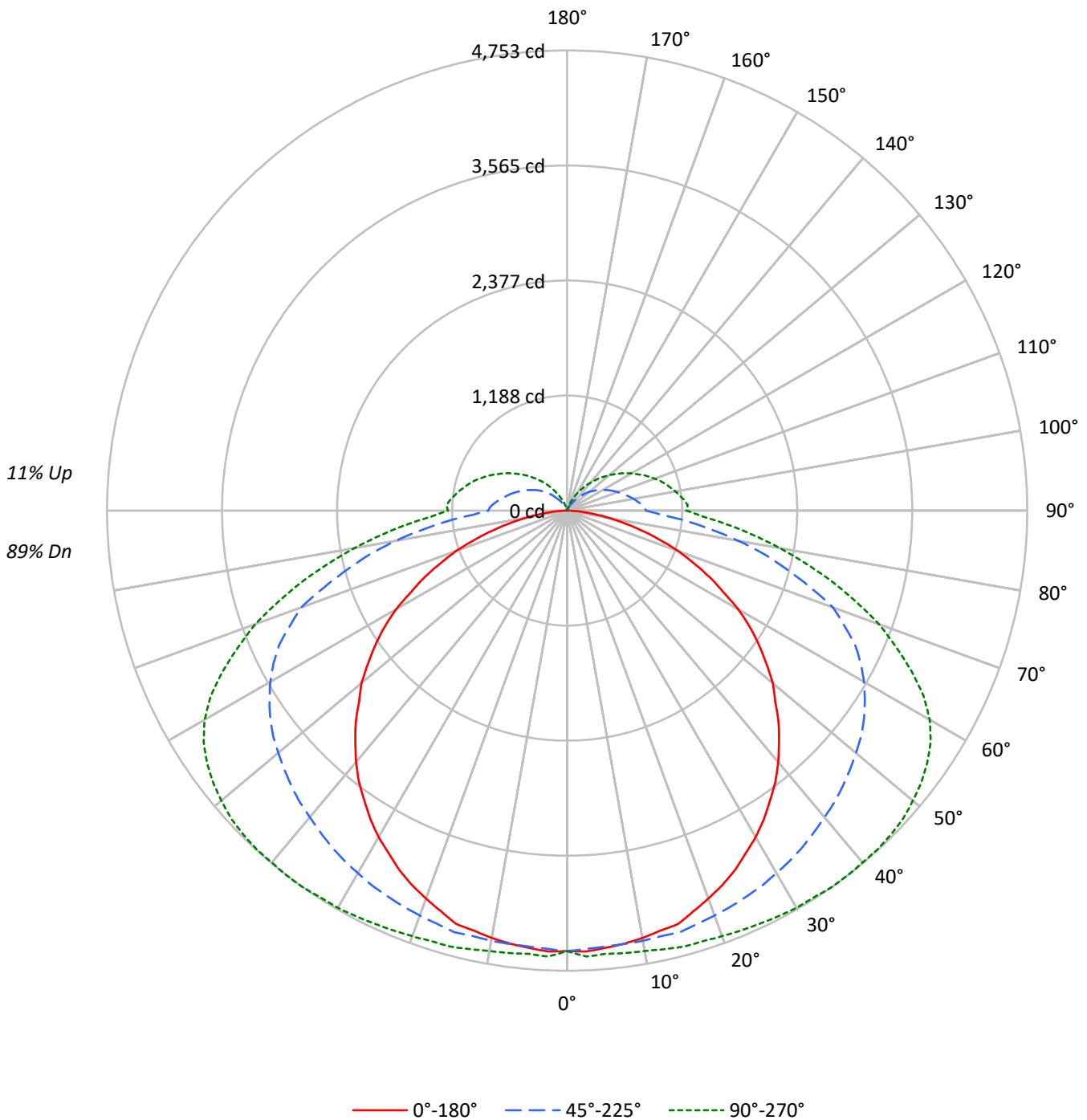
Summary

Lumens per Lamp: 8000 (3 lamps)
Luminaire Lumens: 21688.2 lumens
Efficiency: 90.4%
Efficacy: 67.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.59 / 1.62
Luminous Opening: Rectangular w/ Sides (W: 0.77' x L: 8' x H: 0.15')
CIE Type: Semi-Direct

Input Watts (W): 321
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	105	105	105	105	102	102	102	102	95	95	95		89	89	89		83	83	83	80
1	93	88	83	79	90	85	81	77	79	76	73		74	71	68		69	67	65	62
2	84	75	68	62	80	72	66	60	67	62	57		63	58	54		59	55	52	49
3	75	65	56	50	72	62	55	49	58	52	46		54	49	44		51	46	42	40
4	69	57	48	41	66	55	47	40	51	44	39		48	42	37		45	40	35	33
5	63	50	41	35	60	48	40	34	45	38	33		42	36	31		40	34	30	28
6	58	45	36	30	55	43	35	29	40	33	28		38	32	27		36	30	26	24
7	53	40	32	26	51	39	31	25	37	30	25		34	28	24		32	27	23	21
8	49	36	28	23	47	35	28	22	33	26	22		31	25	21		30	24	20	18
9	46	33	25	20	44	32	25	20	30	24	19		29	23	19		27	22	18	16
10	43	31	23	18	41	30	23	18	28	22	17		27	21	17		25	20	16	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7944	7944	7944
5°	7934	7820	7920
10°	7919	7796	7921
15°	7952	7839	8020
20°	7869	7851	8130
25°	7826	7923	8333
30°	7767	8035	8610
35°	7686	8196	8944
40°	7608	8390	9333
45°	7487	8668	9821
50°	7368	9002	10334
55°	7172	9421	10883
60°	6907	9856	11370
65°	6440	10310	11533
70°	5930	10634	11509
75°	5039	10243	11196
80°	4045	9862	10815
85°	2619	9273	10546



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	432.5	2.0	1.8	0°	4551	4551	4551	4551	4551	
10°-20°	1274.7	5.9	5.3	5°	4535	4497	4520	4546	4595	431
20°-30°	2031.0	9.4	8.5	15°	4422	4425	4508	4591	4663	1243
30°-40°	2646.9	12.2	11.0	25°	4098	4192	4395	4591	4708	1888
40°-50°	3069.2	14.2	12.8	35°	3653	3861	4241	4584	4753	2288
50°-60°	3240.0	14.9	13.5	45°	3088	3435	4026	4520	4731	2379
60°-70°	3025.9	14.0	12.6	55°	2418	2938	3744	4335	4542	2159
70°-80°	2302.0	10.6	9.6	65°	1620	2403	3281	3827	3925	1602
80°-90°	1263.1	5.8	5.3	75°	798	1793	2350	2768	2832	854
90°-100°	749.5	3.5	3.1	85°	158	810	1239	1616	1665	189
100°-110°	608.1	2.8	2.5	90°	0	354	814	1118	1230	8
110°-120°	454.1	2.1	1.9	95°	0	300	766	1088	1217	0
120°-130°	306.1	1.4	1.3	105°	0	215	626	930	1055	0
130°-140°	176.9	0.8	0.7	115°	0	151	492	750	866	0
140°-150°	81.0	0.4	0.3	125°	0	92	364	571	667	0
150°-160°	23.7	0.1	0.1	135°	0	41	235	394	473	0
160°-170°	3.3	0.0	0.0	145°	0	19	115	228	286	0
170°-180°	0.1	0.0	0.0	155°	0	4	41	81	123	0
0°-30°	3738.2	17.2	15.6	165°	0	0	7	17	29	0
0°-40°	6385.1	29.4	26.6	175°	0	0	0	0	2	0
0°-60°	12694.4	58.5	52.9	180°	0	0	0	0	0	0
0°-90°	19285.4	88.9	80.4							
90°-120°	1811.7	8.4	7.5							
90°-150°	2375.8	11.0	9.9							
90°-180°	2403.0	11.1	10.0							
0°-180°	21688.2	100.0	90.4							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4551	4551	4551	4551	4551
2.5°	4557	4516	4531	4557	4610
5°	4535	4497	4520	4546	4595
7.5°	4512	4482	4516	4554	4610
10°	4482	4467	4512	4561	4618
12.5°	4444	4441	4501	4569	4640
15°	4422	4425	4508	4591	4663
17.5°	4339	4369	4474	4584	4663
20°	4264	4316	4452	4584	4678
22.5°	4188	4256	4425	4591	4693
25°	4098	4192	4395	4591	4708
27.5°	3992	4117	4365	4591	4723
30°	3894	4038	4324	4591	4738
32.5°	3781	3955	4286	4587	4738
35°	3653	3861	4241	4584	4753
37.5°	3533	3763	4188	4572	4753
40°	3390	3650	4135	4557	4746
42.5°	3239	3544	4087	4546	4746
45°	3088	3435	4026	4520	4731
47.5°	2915	3314	3962	4490	4708
50°	2772	3194	3894	4456	4663
52.5°	2591	3070	3827	4403	4610
55°	2418	2938	3744	4335	4542
57.5°	2237	2810	3646	4248	4452
60°	2041	2670	3540	4151	4324
62.5°	1815	2539	3420	4000	4151
65°	1620	2403	3281	3827	3925
67.5°	1409	2264	3096	3582	3676
70°	1220	2136	2923	3348	3427
72.5°	1002	1977	2629	3066	3126
75°	798	1793	2350	2768	2832
77.5°	610	1593	2087	2478	2523
80°	444	1337	1797	2177	2230
82.5°	286	1077	1503	1891	1943
85°	158	810	1239	1616	1665
87.5°	60	554	968	1352	1401
90°	0	354	814	1118	1230
92.5°	0	324	798	1122	1247
95°	0	300	766	1088	1217
97.5°	0	277	730	1048	1176
100°	0	255	697	1012	1137
102.5°	0	233	659	970	1093
105°	0	215	626	930	1055
107.5°	0	199	593	887	1012
110°	0	183	559	840	963



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	168	525	798	915
115°	0	151	492	750	866
117.5°	0	136	458	704	814
120°	0	122	426	661	767
122.5°	0	107	396	615	719
125°	0	92	364	571	667
127.5°	0	77	333	524	618
130°	0	63	303	479	569
132.5°	0	50	271	437	517
135°	0	41	235	394	473
137.5°	0	34	198	351	425
140°	0	30	166	312	377
142.5°	0	24	139	267	334
145°	0	19	115	228	286
147.5°	0	15	90	191	242
150°	0	10	69	154	200
152.5°	0	6	53	118	161
155°	0	4	41	81	123
157.5°	0	2	31	55	90
160°	0	0	21	39	63
162.5°	0	0	13	27	45
165°	0	0	7	17	29
167.5°	0	0	3	9	17
170°	0	0	0	3	9
172.5°	0	0	0	0	3
175°	0	0	0	0	2
177.5°	0	0	0	0	2
180°	0	0	0	0	0

(END OF REPORT)