

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: p30827

Luminaire Tested: **2GR8-428T8A-UNV-EB81**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: p30827
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2GR8-428T8A-UNV-EB81
Description: METALUX 2' X 4' COMMERCIAL TROFFER WITH ACRYLIC PRISMATIC LENS
Light Source: (4) DOUBLE BIPIN 28W T8 LINEAR FLUORESCENT LAMPS
Ballast/Driver: -
GE432MAX-N/ULTRA

Summary

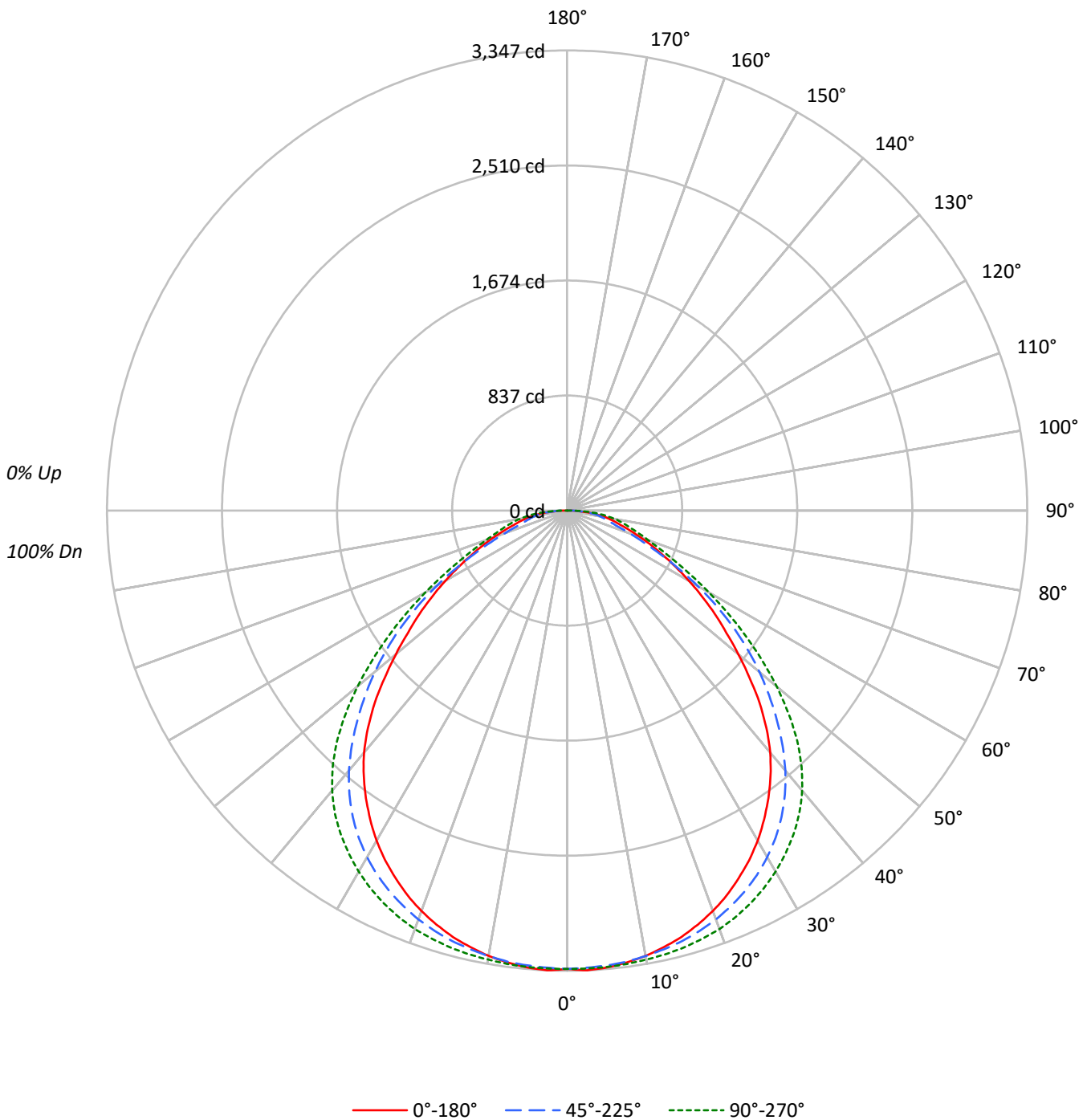
Lumens per Lamp: 2725 (4 lamps)
Luminaire Lumens: 8680.6 lumens
Efficiency: 79.6%
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.37
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 98.8
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	95	95	95	95	93	93	93	93	88	88	88		85	85	85		81	81	81	80
1	87	84	80	77	85	82	79	76	78	76	74		75	73	71		72	71	69	68
2	80	74	68	64	78	72	67	63	69	65	62		67	63	60		64	62	59	57
3	73	65	59	54	71	64	58	54	62	57	53		59	55	52		57	54	51	49
4	67	58	51	46	65	57	51	46	55	50	45		53	48	45		51	47	44	42
5	62	52	45	40	60	51	45	40	50	44	39		48	43	39		47	42	39	37
6	57	47	40	35	56	46	40	35	45	39	35		44	38	34		42	38	34	33
7	53	43	36	31	52	42	36	31	41	35	31		40	35	31		39	34	30	29
8	50	39	33	28	48	39	32	28	38	32	28		37	31	28		36	31	27	26
9	46	36	30	25	45	35	29	25	35	29	25		34	29	25		33	28	25	23
10	43	33	27	23	42	33	27	23	32	27	23		31	26	23		31	26	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5350	5350	5350
5°	5373	5349	5367
10°	5359	5360	5403
15°	5334	5384	5464
20°	5292	5403	5531
25°	5225	5410	5582
30°	5136	5393	5618
35°	4999	5328	5628
40°	4815	5172	5572
45°	4495	4897	5371
50°	4061	4558	4965
55°	3667	4115	4426
60°	3283	3508	3819
65°	2935	2832	3261
70°	2660	2252	2927
75°	2492	2009	2932
80°	2633	2273	3253
85°	2817	2780	3737



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	316.4	3.6	2.9	0°	3334	3334	3334	3334	3334	
10°-20°	915.9	10.6	8.4	5°	3336	3324	3321	3322	3332	317
20°-30°	1406.5	16.2	12.9	15°	3211	3213	3241	3269	3289	905
30°-40°	1693.9	19.5	15.5	25°	2951	2983	3056	3120	3153	1359
40°-50°	1662.5	19.2	15.3	35°	2552	2606	2720	2821	2873	1594
50°-60°	1296.2	14.9	11.9	45°	1981	2030	2158	2296	2367	1520
60°-70°	782.2	9.0	7.2	55°	1311	1353	1471	1538	1582	1174
70°-80°	424.7	4.9	3.9	65°	773	723	746	817	859	773
80°-90°	178.1	2.1	1.6	75°	402	372	324	448	473	434
90°-100°	4.2	0.0	0.0	85°	153	146	151	196	203	152
100°-110°	0.0	0.0	0.0	90°	11	22	30	44	45	14
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	2638.8	30.4	24.2	165°	0	0	0	0	0	0
0°-40°	4332.7	49.9	39.7	175°	0	0	0	0	0	0
0°-60°	7291.4	84.0	66.9	180°	0	0	0	0	0	0
0°-90°	8676.4	100.0	79.6							
90°-120°	4.2	0.0	0.0							
90°-150°	4.2	0.0	0.0							
90°-180°	4.0	0.0	0.0							
0°-180°	8680.6	100.0	79.6							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3334	3334	3334	3334	3334
2.5°	3347	3333	3328	3325	3334
5°	3336	3324	3321	3322	3332
7.5°	3316	3307	3309	3314	3326
10°	3289	3282	3290	3302	3316
12.5°	3252	3250	3267	3288	3305
15°	3211	3213	3241	3269	3289
17.5°	3158	3166	3205	3243	3266
20°	3099	3114	3164	3212	3239
22.5°	3031	3053	3114	3170	3201
25°	2951	2983	3056	3120	3153
27.5°	2867	2906	2989	3061	3098
30°	2772	2816	2911	2990	3032
32.5°	2666	2716	2821	2911	2957
35°	2552	2606	2720	2821	2873
37.5°	2431	2482	2603	2717	2775
40°	2299	2344	2469	2594	2660
42.5°	2145	2192	2319	2456	2525
45°	1981	2030	2158	2296	2367
47.5°	1798	1862	1993	2114	2184
50°	1627	1695	1826	1929	1989
52.5°	1460	1524	1651	1732	1784
55°	1311	1353	1471	1538	1582
57.5°	1163	1184	1286	1338	1381
60°	1023	1015	1093	1146	1190
62.5°	892	862	913	970	1013
65°	773	723	746	817	859
67.5°	665	605	599	694	730
70°	567	506	480	595	624
72.5°	478	432	387	516	540
75°	402	372	324	448	473
77.5°	339	314	281	383	410
80°	285	258	246	322	352
82.5°	224	203	204	265	284
85°	153	146	151	196	203
87.5°	79	85	86	116	118
90°	11	22	30	44	45
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)