

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: P30835

Luminaire Tested: **2GR8-432A19/156-UNV-EB81**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P30835
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2GR8-432A19/156-UNV-EB81
Description: METALUX 2' X 4' COMMERCIAL TROFFER W/ ACRYLIC PRISMATIC LENS, TYPE
19, 0.156" THK
Light Source: (4) DOUBLE BIPIN T8 LINEAR FLUORESCENT LAMPS
Ballast/Driver: -
GE432MAX-N/ULTRA

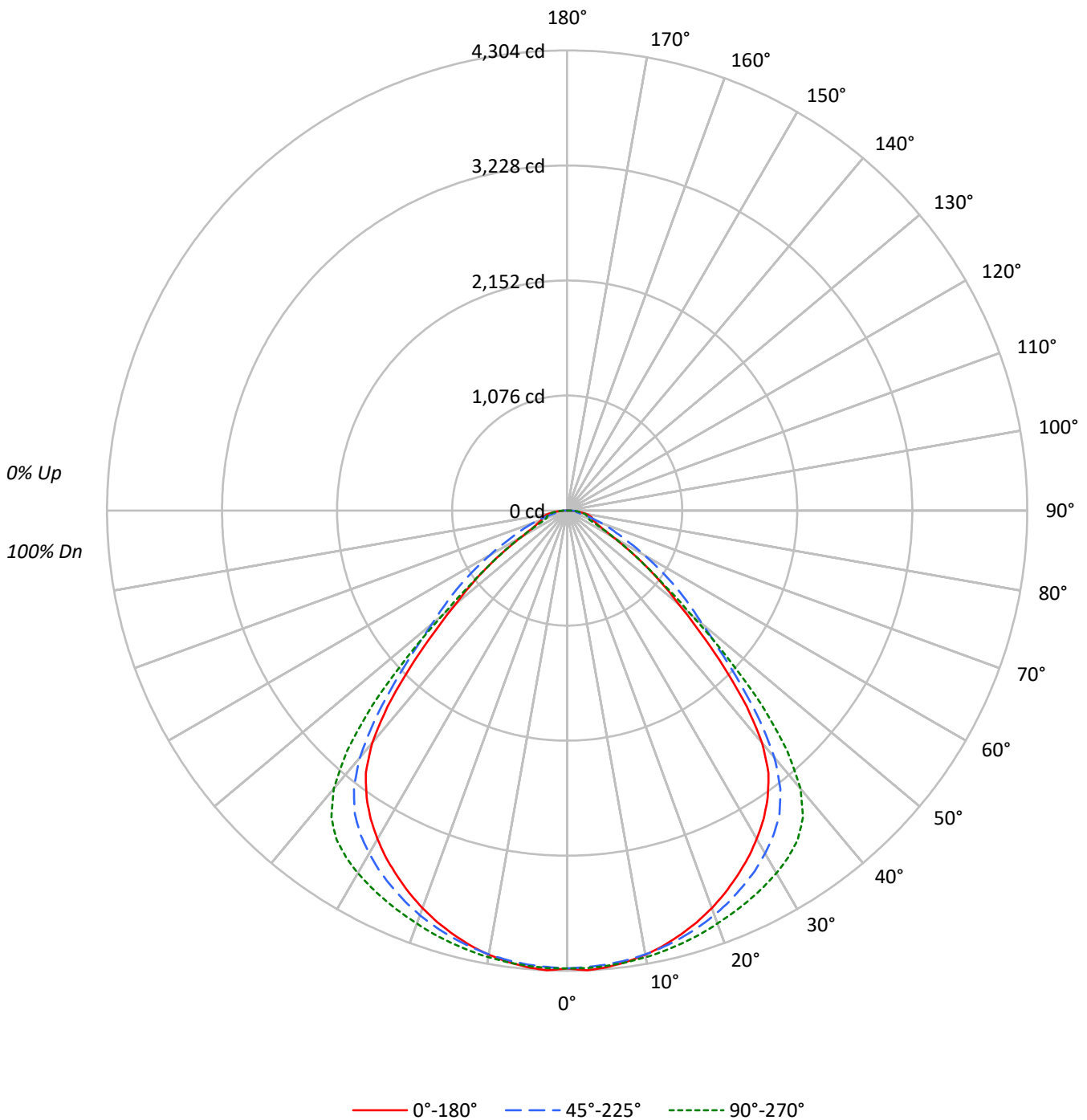
Summary

Lumens per Lamp: 3100 (4 lamps)
Luminaire Lumens: 9277.6 lumens
Efficiency: 74.8%
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.36 / 1.3
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 109.7
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	89	89	89	89	87	87	87	87	83	83	83	80	80	80	76	76	76	75
1	83	80	77	75	81	78	76	73	75	73	71	72	70	69	69	68	67	65
2	77	71	67	63	75	70	66	63	67	64	61	65	62	60	63	60	58	57
3	71	64	59	54	69	63	58	54	61	56	53	59	55	52	57	54	51	50
4	65	58	52	47	64	57	51	47	55	50	46	53	49	46	52	48	45	44
5	61	52	46	42	59	51	46	42	50	45	41	48	44	41	47	43	40	39
6	56	47	41	37	55	47	41	37	45	40	37	44	40	36	43	39	36	35
7	53	43	37	33	51	43	37	33	42	37	33	41	36	33	40	36	32	31
8	49	40	34	30	48	39	34	30	38	33	30	37	33	30	37	32	29	28
9	46	37	31	27	45	36	31	27	35	30	27	35	30	27	34	30	27	25
10	43	34	28	25	42	34	28	25	33	28	25	32	28	25	32	27	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6871	6871	6871
5°	6903	6865	6884
10°	6872	6868	6912
15°	6819	6871	6955
20°	6757	6876	7018
25°	6669	6871	7122
30°	6572	6859	7256
35°	6407	6781	7363
40°	5940	6317	7111
45°	4724	5192	5839
50°	3412	4111	3774
55°	2484	3441	2470
60°	1582	2680	1611
65°	1223	2035	1067
70°	1192	1586	962
75°	1463	1085	1190
80°	1672	869	1460
85°	1657	1602	1786



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	405.8	4.4	3.3	0°	4282	4282	4282	4282	4282	
10°-20°	1168.5	12.6	9.4	5°	4286	4265	4262	4261	4274	407
20°-30°	1792.1	19.3	14.5	15°	4105	4103	4136	4164	4187	1158
30°-40°	2162.7	23.3	17.4	25°	3767	3792	3881	3976	4023	1736
40°-50°	1811.5	19.5	14.6	35°	3271	3307	3462	3665	3759	2030
50°-60°	1004.5	10.8	8.1	45°	2082	2280	2288	2584	2573	1602
60°-70°	529.3	5.7	4.3	55°	888	1093	1230	1199	883	801
70°-80°	288.2	3.1	2.3	65°	322	594	536	648	281	337
80°-90°	112.7	1.2	0.9	75°	236	327	175	360	192	241
90°-100°	2.3	0.0	0.0	85°	90	137	87	118	97	93
100°-110°	0.0	0.0	0.0	90°	5	17	18	21	17	7
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°	3366.3	36.3	27.1	165°	0	0	0	0	0	0
0°-40°	5529.1	59.6	44.6	175°	0	0	0	0	0	0
0°-60°	8345.1	89.9	67.3	180°	0	0	0	0	0	0
0°-90°	9275.3	100.0	74.8							
90°-120°	2.3	0.0	0.0							
90°-150°	2.3	0.0	0.0							
90°-180°	2.0	0.0	0.0							
0°-180°	9277.6	100.0	74.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4282	4282	4282	4282	4282
2.5°	4304	4280	4273	4271	4283
5°	4286	4265	4262	4261	4274
7.5°	4257	4239	4242	4246	4260
10°	4218	4204	4215	4225	4242
12.5°	4168	4158	4178	4198	4217
15°	4105	4103	4136	4164	4187
17.5°	4036	4040	4085	4125	4153
20°	3957	3966	4027	4081	4110
22.5°	3867	3883	3959	4030	4068
25°	3767	3792	3881	3976	4023
27.5°	3664	3691	3801	3916	3972
30°	3547	3578	3702	3847	3916
32.5°	3421	3453	3596	3766	3847
35°	3271	3307	3462	3665	3759
37.5°	3093	3129	3276	3520	3622
40°	2836	2898	3016	3301	3395
42.5°	2487	2613	2671	2988	3047
45°	2082	2280	2288	2584	2573
47.5°	1687	1933	1936	2138	2025
50°	1367	1602	1647	1734	1512
52.5°	1117	1332	1432	1433	1142
55°	888	1093	1230	1199	883
57.5°	668	899	1023	1023	673
60°	493	760	835	878	502
62.5°	384	663	671	754	370
65°	322	594	536	648	281
67.5°	283	528	430	565	230
70°	254	456	338	495	205
72.5°	250	386	250	430	196
75°	236	327	175	360	192
77.5°	208	281	121	292	181
80°	181	226	94	225	158
82.5°	141	179	86	168	132
85°	90	137	87	118	97
87.5°	42	79	66	67	54
90°	5	17	18	21	17
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)