

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: 109P158

Luminaire Tested: **2EP3GX-217S44I-.040 with RK-2X2-220**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 109P158
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2EP3GX-217S44I-.040 with RK-2X2-220
Description: 2 X 2 Recessed Troffer with a RK-2X2-220 specular aluminum reflector insert, 3" deep 16 cell semi-specular low iridescent parabolic louver and a .040 translucent white overlay lens on top of louver.
Light Source: Two-F17T8/735 - 1350 Lumens ea. - 17 Watts ea.
Ballast/Driver: Triad-Utrad B232I120RH Electronic

Summary

Lumens per Lamp: 1350 (2 lamps)
Luminaire Lumens: 1344.4 lumens
Efficiency: 49.8%
Efficacy: 39.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.04 / 1.15
Luminous Opening: Rectangular (W 1.73' x L: 1.75' x H: 0')
CIE Type: Direct

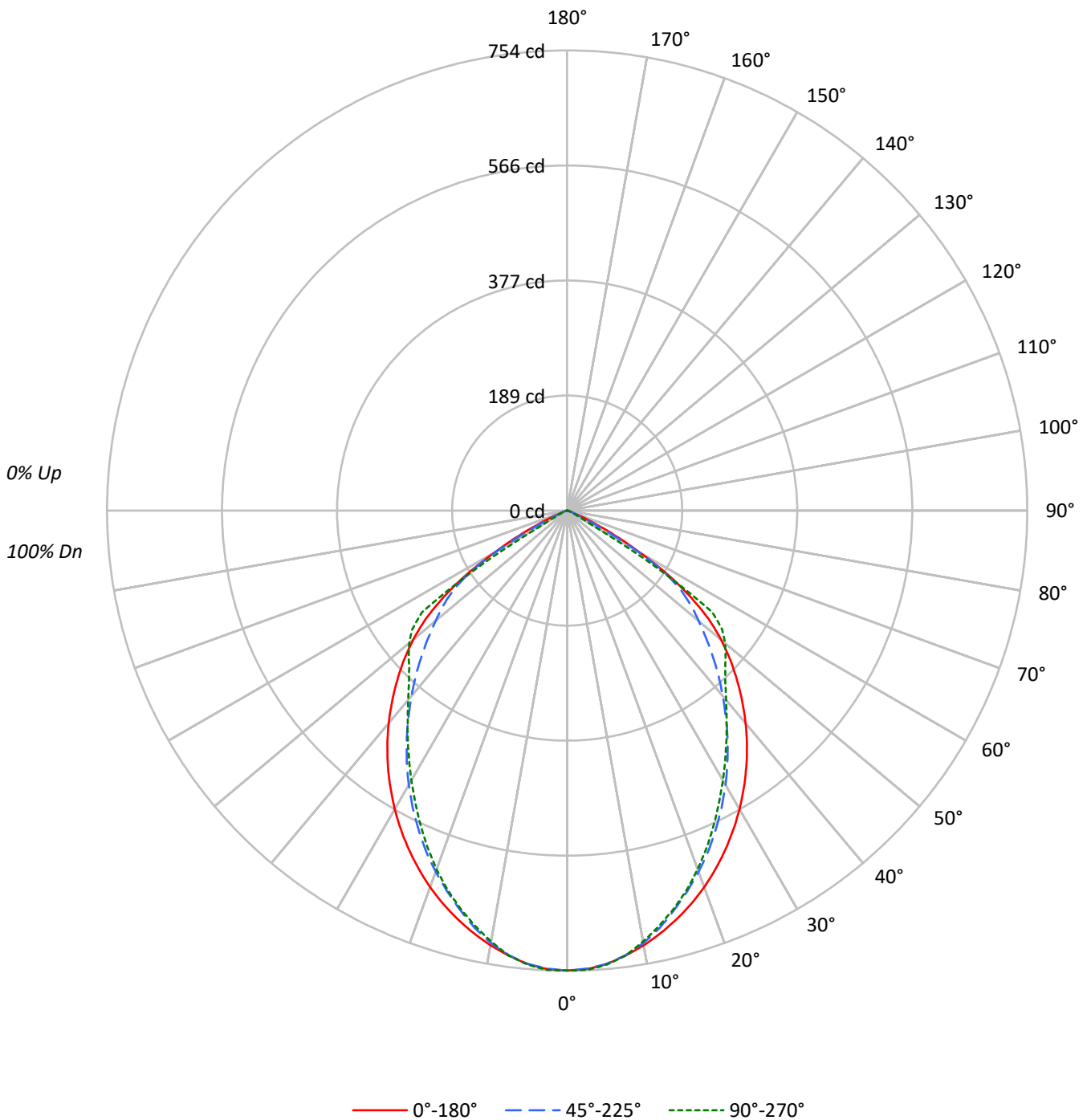
Input Watts (W): 34.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	59	59	59	59	58	58	58	58	55	55	55	53	53	53	51	51	51	50
1	56	54	52	51	54	53	51	50	51	50	49	49	48	47	47	46	46	45
2	52	49	46	44	51	48	45	43	46	44	42	44	43	41	43	42	40	39
3	48	44	40	38	47	43	40	38	42	39	37	40	38	36	39	37	36	35
4	44	40	36	33	43	39	36	33	38	35	32	37	34	32	36	33	32	31
5	41	36	32	29	40	35	32	29	34	31	29	33	31	29	33	30	28	27
6	38	33	29	26	38	32	29	26	31	28	26	31	28	26	30	27	25	24
7	36	30	26	23	35	30	26	23	29	26	23	28	25	23	27	25	23	22
8	34	27	24	21	33	27	24	21	27	23	21	26	23	21	25	23	21	20
9	31	25	22	19	31	25	22	19	25	21	19	24	21	19	24	21	19	18
10	30	24	20	18	29	23	20	18	23	20	17	22	19	17	22	19	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2681	2681	2681
5°	2662	2661	2666
10°	2612	2599	2590
15°	2553	2495	2486
20°	2485	2384	2367
25°	2407	2262	2232
30°	2321	2131	2096
35°	2223	1990	1977
40°	2113	1842	1880
45°	1982	1697	1842
50°	1822	1556	1869
55°	1534	1413	1798
60°	980	947	316
65°	405	214	99
70°	100	89	58
75°	55	60	38
80°	33	41	27
85°	12	20	8



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	70.4	5.2	2.6	0°	754	754	754	754	754	
10°-20°	191.5	14.2	7.1	5°	746	745	745	746	747	70
20°-30°	268.0	19.9	9.9	15°	693	690	678	674	675	195
30°-40°	293.1	21.8	10.9	25°	613	599	576	565	569	282
40°-50°	274.9	20.4	10.2	35°	512	488	458	447	455	320
50°-60°	202.6	15.1	7.5	45°	394	362	337	343	366	303
60°-70°	38.6	2.9	1.4	55°	247	217	228	258	290	216
70°-80°	4.6	0.3	0.2	65°	48	46	25	15	12	56
80°-90°	0.6	0.0	0.0	75°	4	4	4	4	3	5
90°-100°	0.0	0.0	0.0	85°	0	0	0	0	0	1
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	0
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°	529.9	39.4	19.6	165°	0	0	0	0	0	0
0°-40°	823.1	61.2	30.5	175°	0	0	0	0	0	0
0°-60°	1300.6	96.7	48.2	180°	0	0	0	0	0	0
0°-90°	1344.4	100.0	49.8							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	1344.4	100.0	49.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	753.7	753.7	753.7	753.7	753.7
2.5°	751.9	751.3	751.2	752.2	753.3
5°	745.6	745.1	745.3	746.0	746.7
7.5°	735.3	734.9	734.8	734.8	735.3
10°	723.3	722.1	719.5	717.8	717.0
12.5°	709.1	707.0	700.4	696.2	696.7
15°	693.2	689.5	677.5	674.0	675.2
17.5°	675.7	670.3	654.0	649.6	651.7
20°	656.6	648.8	629.7	623.0	625.3
22.5°	635.8	625.0	604.0	594.9	597.4
25°	613.2	599.1	576.4	565.4	568.6
27.5°	589.7	572.2	548.1	535.2	538.9
30°	565.0	545.0	518.8	504.9	510.3
32.5°	538.8	516.7	488.9	475.3	482.2
35°	511.9	487.5	458.2	446.6	455.2
37.5°	484.0	457.4	427.2	418.4	429.1
40°	455.1	426.5	396.8	391.3	404.9
42.5°	424.9	395.1	367.1	365.9	383.7
45°	394.1	361.9	337.4	343.2	366.1
47.5°	362.8	328.0	308.5	324.1	351.9
50°	329.3	293.7	281.2	307.3	337.7
52.5°	292.6	257.9	256.6	288.5	320.0
55°	247.4	217.1	227.8	258.2	289.9
57.5°	195.5	170.2	190.4	194.2	174.0
60°	137.7	120.9	133.1	84.1	44.4
62.5°	89.2	77.7	67.0	26.5	19.1
65°	48.1	45.8	25.4	15.0	11.8
67.5°	17.9	22.4	12.6	10.1	8.0
70°	9.6	10.5	8.6	7.1	5.6
72.5°	6.1	6.7	6.1	5.1	4.0
75°	4.0	4.5	4.4	3.7	2.8
77.5°	2.6	3.0	3.1	2.6	2.0
80°	1.6	1.9	2.0	1.8	1.3
82.5°	0.9	1.1	1.2	1.0	0.8
85°	0.3	0.4	0.5	0.4	0.2
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)