

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: 154P115

Luminaire Tested: **P3-2OC16S22I-RS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 154P115
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: P3-2OC16S22I-RS
Description: 1 X 1 Recessed Troffer with a 3" deep 4 cell
semi-specular low iridescent parabolic louver.
Light Source: Two-FBO16/31K - 1250 Lumens ea. - 16 Watts ea.
Ballast/Driver: -

Summary

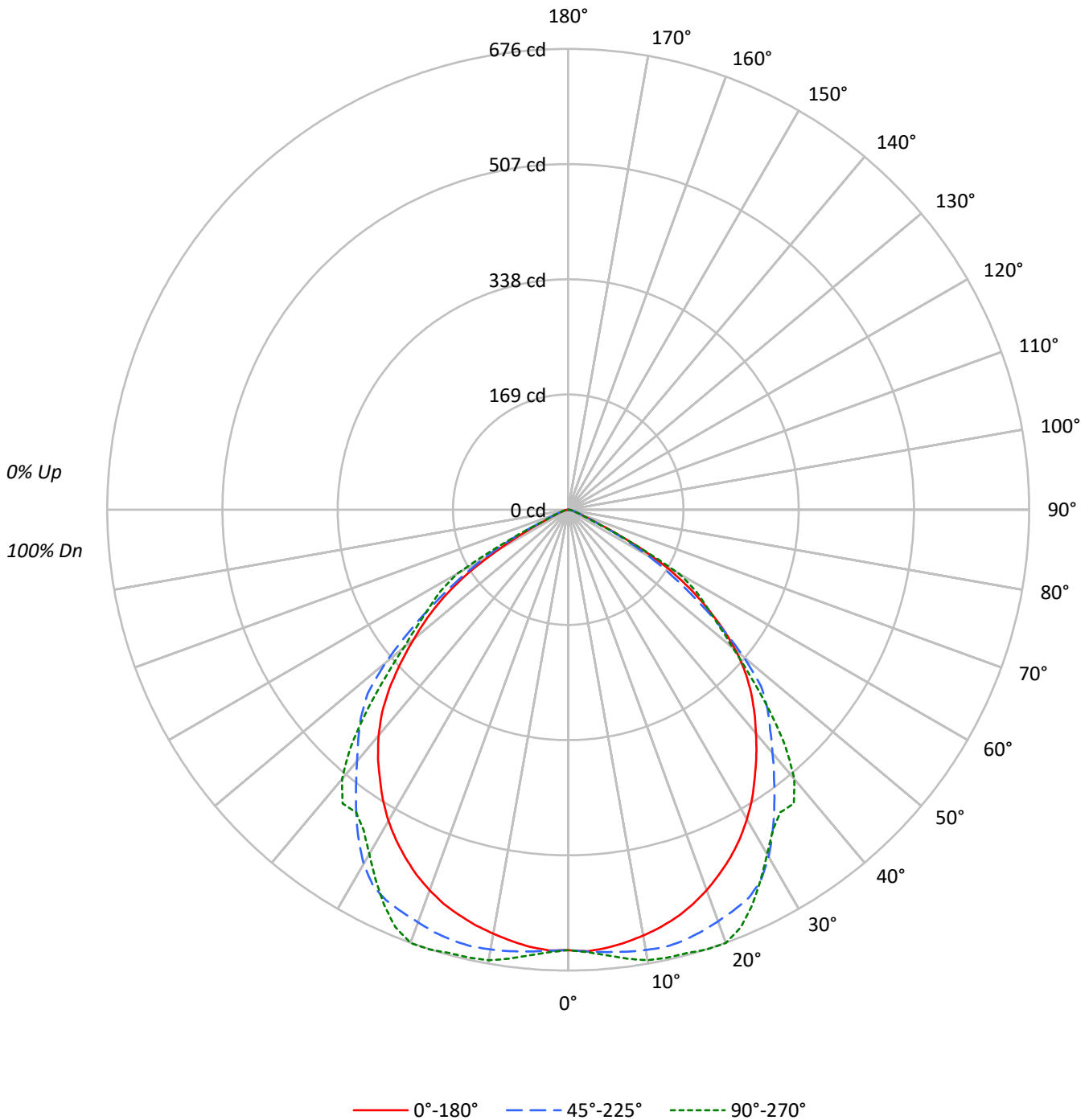
Lumens per Lamp: 1250 (2 lamps)
Luminaire Lumens: 1462.5 lumens
Efficiency: 58.5%
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.36
Luminous Opening: Rectangular (W 0.93' x L: 0.93' x H: 0')
CIE Type: Direct

Input Watts (W): 41.7
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



TEST NUMBER: 154P115
CATALOG NUMBER: P3-20C16S22I-RS

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	70	70	70	70	68	68	68	68	65	65	65	62	62	62	60	60	60	58
1	65	63	61	59	64	62	60	58	59	58	57	57	56	55	55	54	53	52
2	60	57	53	51	59	55	53	50	53	51	49	52	50	48	50	48	47	46
3	56	51	47	44	55	50	46	43	48	45	42	47	44	42	45	43	41	40
4	52	46	41	38	50	45	41	38	44	40	37	42	39	37	41	38	36	35
5	48	41	37	33	47	41	36	33	39	36	33	38	35	32	37	34	32	31
6	44	37	33	29	43	37	33	29	36	32	29	35	32	29	34	31	29	28
7	41	34	30	26	40	34	29	26	33	29	26	32	28	26	31	28	26	25
8	39	31	27	24	38	31	27	24	30	26	23	29	26	23	29	26	23	22
9	36	29	24	21	35	28	24	21	28	24	21	27	24	21	27	23	21	20
10	34	27	22	19	33	26	22	19	26	22	19	25	22	19	25	22	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8090	8090	8090
5°	8111	8249	8092
10°	8066	8534	8033
15°	8016	8729	7985
20°	7914	9013	7918
25°	7777	8831	7791
30°	7580	8432	7622
35°	7299	8286	7360
40°	7005	8432	7067
45°	6718	7410	6562
50°	6248	6129	5755
55°	5362	5393	4838
60°	4012	4694	3013
65°	1550	1295	1114
70°	619	590	535
75°	411	387	368
80°	317	288	288
85°	259	244	259



TEST NUMBER: 154P115

CATALOG NUMBER: P3-2OC16S22I-RS

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp	0°	45°	90°	135°	180°	Flux
0°-10°	62.2	4.3	2.5	0°	646	646	646	646	
10°-20°	183.7	12.6	7.3	5°	645	652	656	650	61
20°-30°	282.7	19.3	11.3	15°	618	654	673	654	174
30°-40°	329.3	22.5	13.2	25°	563	628	639	632	259
40°-50°	316.5	21.6	12.7	35°	477	527	542	542	299
50°-60°	213.9	14.6	8.6	45°	379	413	418	429	291
60°-70°	61.7	4.2	2.5	55°	246	228	247	239	217
70°-80°	10.2	0.7	0.4	65°	52	47	44	49	67
80°-90°	2.3	0.2	0.1	75°	8	9	8	10	10
90°-100°	0.0	0.0	0.0	85°	2	2	2	2	2
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0
0°-30°	528.7	36.1	21.1	165°	0	0	0	0	0
0°-40°	858.0	58.7	34.3	175°	0	0	0	0	0
0°-60°	1388.3	94.9	55.5	180°	0	0	0	0	0
0°-90°	1462.5	100.0	58.5						
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°	1462.5	100.0	58.5						



TEST NUMBER: 154P115

CATALOG NUMBER: P3-20C16S22I-RS

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
2.5°	648.3	646.4	648.5	648.9	649.7	648.5	647.5	645.7	647.0
5°	645.2	646.0	651.5	654.6	656.2	654.1	650.5	645.6	643.7
7.5°	640.4	643.7	654.0	661.1	664.2	660.5	653.3	643.8	638.2
10°	634.3	640.6	655.9	667.2	671.1	666.8	655.0	640.4	631.7
12.5°	627.1	636.3	657.0	668.5	672.9	668.6	656.0	637.1	624.6
15°	618.3	631.4	654.3	667.2	673.3	667.3	654.3	632.5	615.9
17.5°	607.0	624.4	649.1	666.2	676.2	666.1	650.2	626.8	606.3
20°	593.8	615.6	642.5	666.4	676.3	666.4	644.1	620.1	594.1
22.5°	578.9	604.8	635.7	657.8	662.5	659.6	638.2	611.0	580.1
25°	562.8	590.7	627.7	637.1	639.1	640.6	632.2	599.2	563.8
27.5°	544.6	574.4	612.5	610.4	611.4	615.6	620.8	584.4	546.4
30°	524.2	555.8	587.9	580.9	583.1	587.2	599.7	567.0	527.1
32.5°	502.2	535.5	558.4	552.6	557.8	558.2	572.4	547.6	505.5
35°	477.4	514.1	526.9	527.4	542.0	533.2	542.0	526.9	481.4
37.5°	453.1	491.9	496.0	512.9	543.2	516.4	510.9	504.8	458.2
40°	428.5	467.9	466.1	505.8	515.8	508.8	481.6	480.9	432.3
42.5°	404.2	439.5	438.5	470.0	471.8	473.9	455.4	453.4	404.2
45°	379.3	408.0	413.2	422.7	418.4	427.6	429.4	419.5	370.5
47.5°	351.7	373.3	383.9	368.9	362.7	375.3	398.4	380.7	333.4
50°	320.7	335.7	335.7	314.9	314.6	322.1	350.0	338.8	295.4
52.5°	284.6	297.3	280.9	269.1	277.4	275.4	293.9	295.2	260.0
55°	245.6	254.4	228.1	230.2	247.0	235.3	238.8	251.9	221.6
57.5°	204.9	205.1	181.0	195.0	221.7	197.8	188.9	203.8	175.8
60°	160.2	147.4	137.6	154.7	187.4	157.5	142.4	145.6	120.3
62.5°	107.0	86.5	89.1	97.5	104.1	106.9	92.8	85.9	72.5
65°	52.3	47.1	46.8	48.0	43.7	54.0	48.8	47.8	37.6
67.5°	25.7	26.3	26.4	25.9	24.0	27.9	26.8	27.3	21.4
70°	16.9	17.5	17.8	17.4	16.1	18.2	18.0	17.7	14.6
72.5°	11.8	12.4	12.8	12.4	11.3	12.9	13.0	12.5	10.4
75°	8.5	9.0	9.3	9.0	8.0	9.3	9.5	9.2	7.6
77.5°	6.1	6.5	6.7	6.5	5.7	6.7	6.9	6.8	5.5
80°	4.4	4.6	4.7	4.6	4.0	4.8	4.9	4.9	4.0
82.5°	2.9	3.1	3.2	3.1	2.7	3.2	3.4	3.4	2.8
85°	1.8	1.9	1.9	1.9	1.7	2.0	2.1	2.2	1.8
87.5°	0.9	0.9	1.0	0.9	0.8	1.1	1.2	1.2	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: 154P115

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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)