

Scaled data based on original data using
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact
Fluorescent Lamps

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: 19168

Luminaire Tested: **687-12-CF2/32**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19168
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 687-12-CF2/32
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND NO LENS

Light Source: TWO SYLVANIA 32 WATT CPFL LAMPS

CF32DT/E/841. LUMEN RATING = 4800 LMS.

Ballast/Driver: -

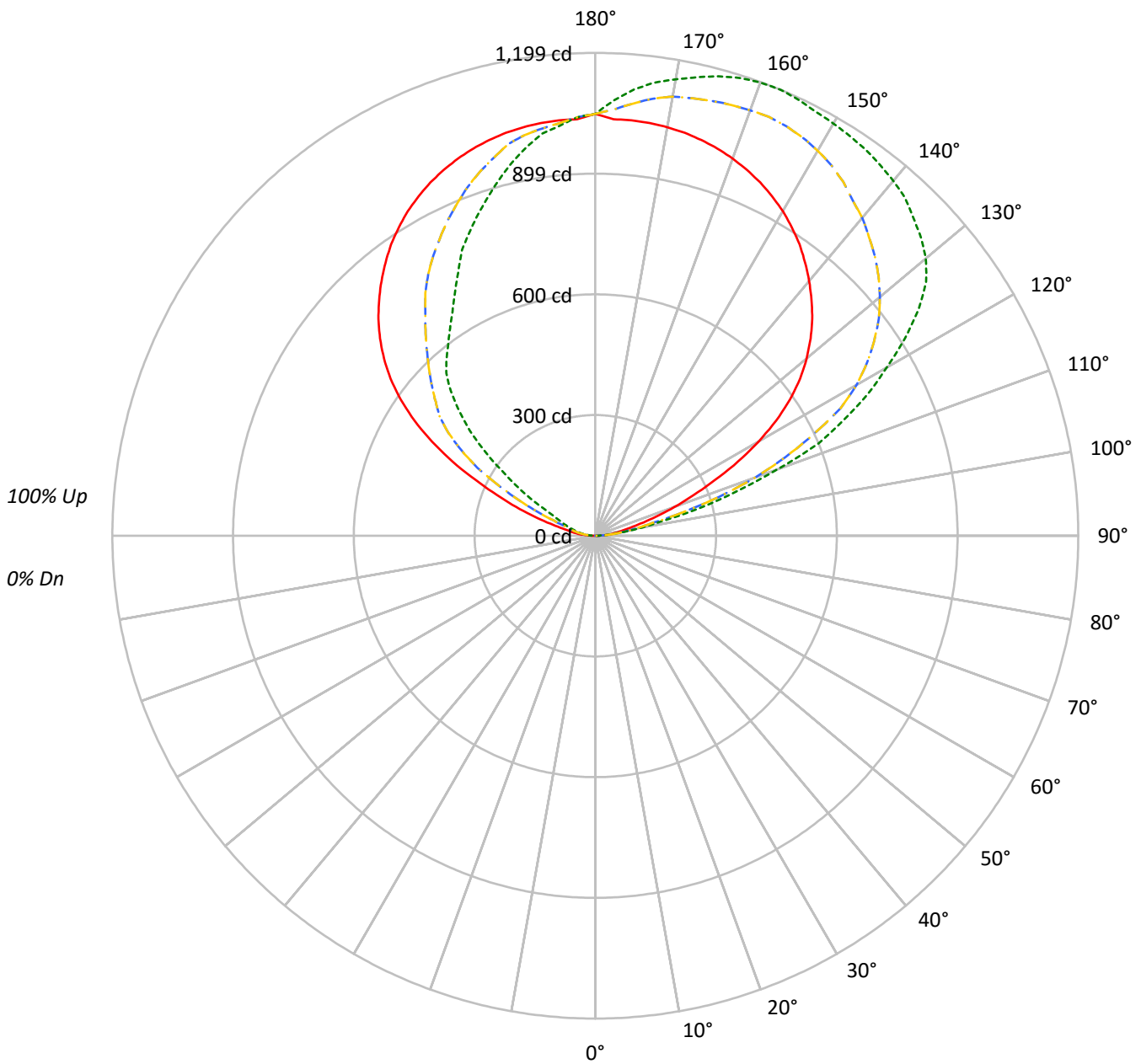
Summary

Lumens per Lamp: 4800 (1 lamp)
Luminaire Lumens: 3154.1 lumens
Efficiency: 65.7%
Efficacy: -
N/A
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Indirect

Input Watts (W): 0
Input Voltage (V): NR
Input Current (A_{in}): 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



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



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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	63	63	63	63	53	53	53	53	37	37	37	21	21	21	7	7	7	0
1	57	54	52	50	49	46	45	43	32	31	30	18	18	17	6	6	6	0
2	52	47	44	41	44	41	38	35	28	26	24	16	15	14	5	5	5	0
3	47	41	37	34	40	36	32	29	24	22	20	14	13	12	5	4	4	0
4	43	37	32	28	37	31	28	25	22	19	17	12	11	10	4	4	3	0
5	39	32	27	24	33	28	24	21	19	17	15	11	10	9	4	3	3	0
6	36	29	24	20	31	25	21	18	17	15	13	10	9	7	3	3	2	0
7	33	26	21	18	28	22	18	15	15	13	11	9	8	6	3	2	2	0
8	31	23	19	15	26	20	16	13	14	11	9	8	7	6	3	2	2	0
9	28	21	16	13	24	18	14	12	13	10	8	7	6	5	2	2	2	0
10	26	19	15	12	22	16	13	10	11	9	7	7	5	4	2	2	1	0

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
95°	Luminaire represents a point source (luminous area is zero).			
100°	No luminance values can be calculated.			
105°				
110°				
115°				
120°				
125°				
130°				
135°				
140°				
145°				
150°				
155°				
160°				
165°				
170°				
175°				



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.0	0.0	0.0
20°-30°	0.0	0.0	0.0
30°-40°	0.0	0.0	0.0
40°-50°	0.0	0.0	0.0
50°-60°	0.0	0.0	0.0
60°-70°	0.0	0.0	0.0
70°-80°	0.0	0.0	0.0
80°-90°	0.0	0.0	0.0
90°-100°	36.0	1.1	0.7
100°-110°	163.1	5.2	3.4
110°-120°	379.3	12.0	7.9
120°-130°	554.6	17.6	11.6
130°-140°	607.3	19.3	12.7
140°-150°	563.3	17.9	11.7
150°-160°	455.7	14.4	9.5
160°-170°	294.2	9.3	6.1
170°-180°	100.5	3.2	2.1
0°-30°	0.0	0.0	0.0
0°-40°	0.0	0.0	0.0
0°-60°	0.0	0.0	0.0
0°-90°	0.0	0.0	0.0
90°-120°	578.4	18.3	12.0
90°-150°	2303.6	73.0	48.0
90°-180°	3154.0	100.0	65.7
0°-180°	3154.1	100.0	65.7

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
90°	0	0	0	0	0	
95°	34	35	34	17	34	36
105°	115	272	115	56	115	130
115°	328	680	328	110	328	328
125°	589	979	589	286	589	523
135°	762	1116	762	507	762	586
145°	884	1170	884	629	884	552
155°	968	1194	968	783	968	446
165°	1017	1181	1017	918	1017	287
175°	1036	1113	1036	1021	1036	99
180°	1047	1047	1047	1047	1047	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
92.5°	17.3	21.6	16.1	9.8	5.9	9.8	16.1	21.6	17.3	11.4	10.7
95°	33.9	44.2	38.8	41.7	34.7	41.7	38.8	44.2	33.9	23.2	20.6
97.5°	49.7	69.1	66.6	80.0	71.4	80.0	66.6	69.1	49.7	35.6	30.8
100°	64.0	95.6	100.1	131.4	116.7	131.4	100.1	95.6	64.0	47.1	42.6
102.5°	83.5	122.1	143.8	203.8	174.1	203.8	143.8	122.1	83.5	65.9	53.5
105°	115.1	150.2	224.9	306.0	271.8	306.0	224.9	150.2	115.1	102.6	67.5
107.5°	158.3	194.6	321.6	400.1	369.8	400.1	321.6	194.6	158.3	150.8	80.6
110°	209.4	256.8	421.2	524.3	479.0	524.3	421.2	256.8	209.4	206.4	108.7
112.5°	264.2	325.4	510.9	609.9	600.6	609.9	510.9	325.4	264.2	256.8	155.6
115°	327.5	397.9	599.6	685.5	680.1	685.5	599.6	397.9	327.5	311.4	209.3
117.5°	400.0	468.1	686.1	763.4	762.7	763.4	686.1	468.1	400.0	369.2	271.8
120°	467.8	532.0	748.7	841.3	835.2	841.3	748.7	532.0	467.8	423.8	337.9
122.5°	532.3	591.3	800.1	913.7	910.9	913.7	800.1	591.3	532.3	480.6	393.1
125°	589.3	643.4	845.1	969.9	979.2	969.9	845.1	643.4	589.3	535.2	444.8
127.5°	641.0	698.0	887.2	1009.8	1035.3	1009.8	887.2	698.0	641.0	588.1	487.6
130°	684.7	747.1	922.3	1037.6	1071.1	1037.6	922.3	747.1	684.7	632.5	517.3
132.5°	724.9	794.7	953.6	1063.4	1096.3	1063.4	953.6	794.7	724.9	673.7	549.8
135°	761.5	836.8	981.7	1089.3	1116.4	1089.3	981.7	836.8	761.5	711.4	583.4
137.5°	794.5	873.2	1005.7	1106.2	1138.1	1106.2	1005.7	873.2	794.5	746.2	617.8
140°	825.8	908.3	1030.9	1120.3	1150.6	1120.3	1030.9	908.3	825.8	781.3	655.2
142.5°	855.3	940.2	1049.4	1133.7	1160.8	1133.7	1049.4	940.2	855.3	813.2	693.2
145°	883.7	968.3	1072.7	1142.9	1170.4	1142.9	1072.7	968.3	883.7	845.1	735.3
147.5°	908.0	990.3	1090.6	1153.1	1176.4	1153.1	1090.6	990.3	908.0	872.6	771.4
150°	931.0	1009.8	1104.0	1160.8	1181.9	1160.8	1104.0	1009.8	931.0	899.7	803.9
152.5°	950.4	1025.1	1114.8	1169.4	1186.6	1169.4	1114.8	1025.1	950.4	923.3	834.3
155°	968.0	1039.2	1121.8	1176.4	1194.3	1176.4	1121.8	1039.2	968.0	947.2	865.5
157.5°	983.2	1051.0	1125.7	1177.1	1199.1	1177.1	1125.7	1051.0	983.2	969.3	894.3
160°	996.7	1061.2	1124.1	1176.4	1197.5	1176.4	1124.1	1061.2	996.7	986.2	923.3
162.5°	1008.1	1068.2	1121.8	1170.4	1192.1	1170.4	1121.8	1068.2	1008.1	1000.2	948.8
165°	1017.2	1068.2	1118.0	1160.2	1181.2	1160.2	1118.0	1068.2	1017.2	1011.1	972.1
167.5°	1025.0	1068.2	1112.6	1146.7	1166.2	1146.7	1112.6	1068.2	1025.0	1019.7	996.4
170°	1029.9	1065.0	1107.2	1133.7	1150.6	1133.7	1107.2	1065.0	1029.9	1026.1	1010.4
172.5°	1033.8	1060.2	1094.7	1121.2	1135.3	1121.2	1094.7	1060.2	1033.8	1033.1	1019.7
175°	1035.5	1055.8	1077.5	1099.2	1112.6	1099.2	1077.5	1055.8	1035.5	1037.6	1028.3
177.5°	1035.3	1050.3	1059.6	1072.1	1082.9	1072.1	1059.6	1050.3	1035.3	1042.4	1040.1
180°	1047.4	1047.4	1047.4	1047.4	1047.4	1047.4	1047.4	1047.4	1047.4	1047.4	1047.4



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.5	0.5	0.5	0.5	0.5	0.5
92.5°	9.8	8.2	9.8	10.7	11.4	17.3
95°	18.4	16.8	18.4	20.6	23.2	33.9
97.5°	27.6	25.4	27.6	30.8	35.6	49.7
100°	37.8	35.6	37.8	42.6	47.1	64.0
102.5°	47.1	44.2	47.1	53.5	65.9	83.5
105°	58.9	55.7	58.9	67.5	102.6	115.1
107.5°	71.4	65.9	71.4	80.6	150.8	158.3
110°	85.4	80.0	85.4	108.7	206.4	209.4
112.5°	99.5	94.0	99.5	155.6	256.8	264.2
115°	121.2	110.3	121.2	209.3	311.4	327.5
117.5°	168.1	138.4	168.1	271.8	369.2	400.0
120°	215.6	186.6	215.6	337.9	423.8	467.8
122.5°	271.8	234.2	271.8	393.1	480.6	532.3
125°	330.9	286.5	330.9	444.8	535.2	589.3
127.5°	394.7	348.1	394.7	487.6	588.1	641.0
130°	444.8	406.5	444.8	517.3	632.5	684.7
132.5°	496.9	457.9	496.9	549.8	673.7	724.9
135°	537.4	507.1	537.4	583.4	711.4	761.5
137.5°	564.8	547.6	564.8	617.8	746.2	794.5
140°	592.6	574.7	592.6	655.2	781.3	825.8
142.5°	620.7	599.6	620.7	693.2	813.2	855.3
145°	655.2	628.7	655.2	735.3	845.1	883.7
147.5°	687.7	659.6	687.7	771.4	872.6	908.0
150°	727.6	697.3	727.6	803.9	899.7	931.0
152.5°	770.4	736.9	770.4	834.3	923.3	950.4
155°	805.5	782.9	805.5	865.5	947.2	968.0
157.5°	837.4	815.7	837.4	894.3	969.3	983.2
160°	868.7	849.9	868.7	923.3	986.2	996.7
162.5°	901.3	883.4	901.3	948.8	1000.2	1008.1
165°	931.6	917.9	931.6	972.1	1011.1	1017.2
167.5°	961.3	950.4	961.3	996.4	1019.7	1025.0
170°	988.7	980.1	988.7	1010.4	1026.1	1029.9
172.5°	1008.2	1007.3	1008.2	1019.7	1033.1	1033.8
175°	1019.7	1021.3	1019.7	1028.3	1037.6	1035.5
177.5°	1036.9	1040.1	1036.9	1040.1	1042.4	1035.3
180°	1047.4	1047.4	1047.4	1047.4	1047.4	1047.4

(END OF REPORT)