

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: SHAPER

Report Number: 18658

Luminaire Tested: **651-INC**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 18658
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 651-INC
Description: FLUORESCENT WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND NO LENS

Light Source: ONE GE 75 WATT INCANDESCENT LAMP

75A19. LUMEN RATING = 1170 LMS.

Ballast/Driver: -

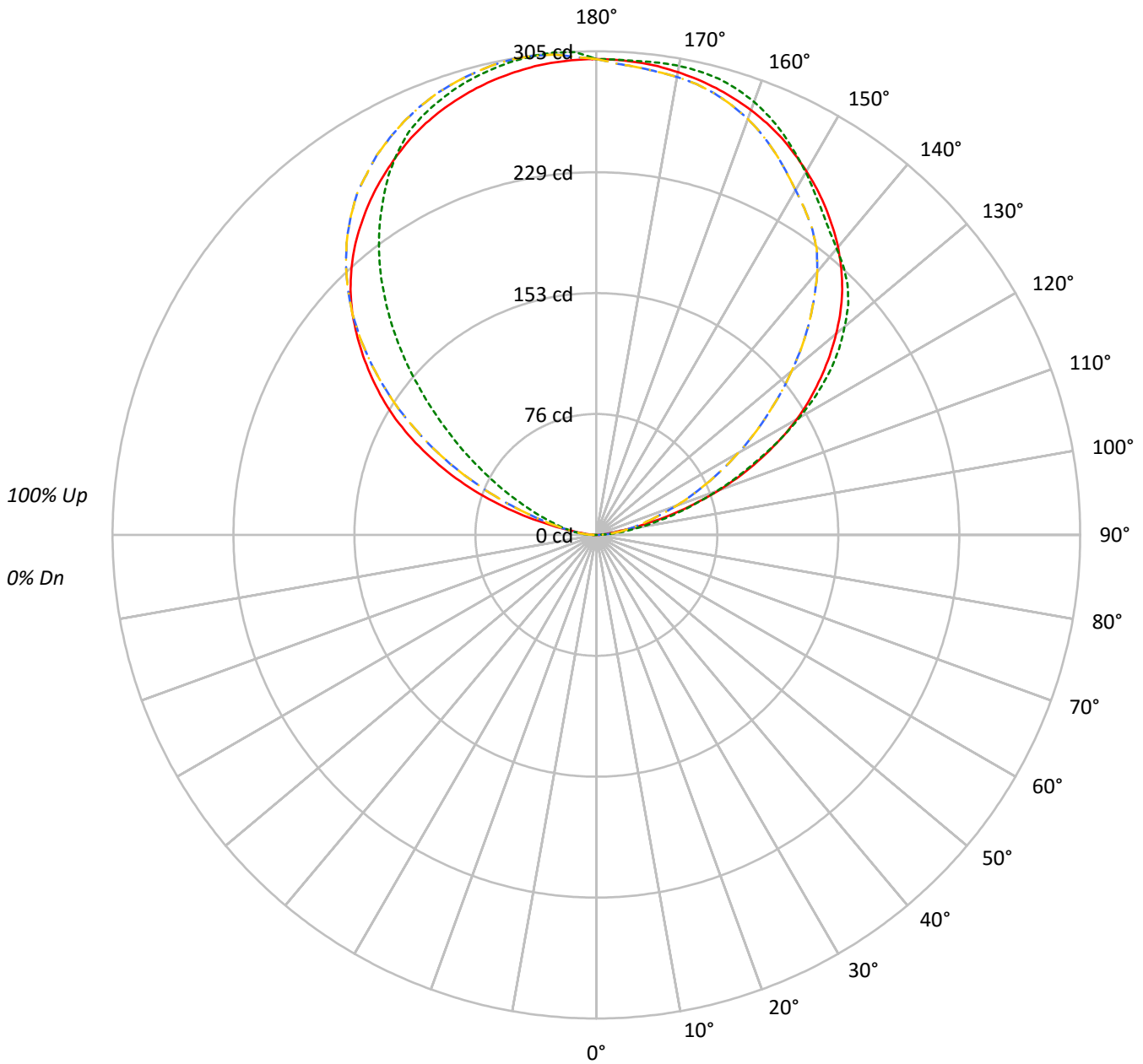
Summary

Lumens per Lamp: 1170 (1 lamp)
Luminaire Lumens: 841.6 lumens
Efficiency: 71.9%
Efficacy: 11.2 lumens/watt
N/A
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Indirect

Input Watts (W): 75
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



— 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				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	69	69	69	69	59	59	59	59	40	40	40	23	23	23	7	7	7	0	0	0	0
1	62	59	57	55	53	51	49	47	35	34	32	20	19	19	6	6	6	0	0	0	0
2	57	52	48	44	48	44	41	38	30	28	27	18	17	16	6	5	5	0	0	0	0
3	52	45	41	37	44	39	35	32	27	24	22	15	14	13	5	5	4	0	0	0	0
4	47	40	35	31	40	34	30	27	24	21	19	14	12	11	4	4	4	0	0	0	0
5	43	35	30	26	37	30	26	23	21	18	16	12	11	10	4	3	3	0	0	0	0
6	39	32	26	22	34	27	23	19	19	16	14	11	9	8	3	3	3	0	0	0	0
7	36	28	23	19	31	24	20	17	17	14	12	10	8	7	3	3	2	0	0	0	0
8	33	25	20	17	28	22	18	15	15	12	10	9	7	6	3	2	2	0	0	0	0
9	31	23	18	15	26	20	16	13	14	11	9	8	6	5	3	2	2	0	0	0	0
10	29	21	16	13	25	18	14	11	12	10	8	7	6	5	2	2	2	0	0	0	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°	10.1	1.2	0.9
100°-110°	44.7	5.3	3.8
110°-120°	94.4	11.2	8.1
120°-130°	137.5	16.3	11.8
130°-140°	159.9	19.0	13.7
140°-150°	155.2	18.4	13.3
150°-160°	127.8	15.2	10.9
160°-170°	83.3	9.9	7.1
170°-180°	28.6	3.4	2.4
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°	149.2	17.7	12.8
90°-150°	601.8	71.5	51.4
90°-180°	842.0	100.0	72.0
0°-180°	841.6	100.0	71.9

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
90°	0	0	0	0	0	
95°	6	11	6	9	6	8
105°	48	52	48	27	48	51
115°	115	113	115	61	115	113
125°	173	180	173	115	173	154
135°	219	224	219	180	219	169
145°	252	248	252	238	252	158
155°	276	279	276	280	276	127
165°	292	298	292	298	292	82
175°	299	300	299	305	299	28
180°	300	300	300	300	300	



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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°	3.0	3.2	3.0	3.2	3.5	3.2	3.0	3.2	3.0	4.5	4.9
95°	6.0	7.3	8.2	9.6	10.6	9.6	8.2	7.3	6.0	8.6	8.8
97.5°	9.8	11.7	13.8	16.4	18.9	16.4	13.8	11.7	9.8	17.5	13.1
100°	17.9	16.8	19.7	24.1	28.2	24.1	19.7	16.8	17.9	34.5	18.2
102.5°	31.3	22.4	25.9	31.7	38.7	31.7	25.9	22.4	31.3	54.8	25.1
105°	47.6	30.7	33.5	41.0	51.9	41.0	33.5	30.7	47.6	76.6	35.2
107.5°	64.5	40.7	42.4	51.3	65.7	51.3	42.4	40.7	64.5	97.1	47.1
110°	82.2	52.5	53.3	63.0	80.8	63.0	53.3	52.5	82.2	117.5	62.4
112.5°	98.9	65.1	64.7	75.9	96.5	75.9	64.7	65.1	98.9	135.7	78.3
115°	114.9	77.9	76.6	89.6	112.8	89.6	76.6	77.9	114.9	151.9	95.6
117.5°	131.1	92.3	89.9	104.9	130.7	104.9	89.9	92.3	131.1	167.6	113.4
120°	145.9	105.9	103.2	119.8	147.6	119.8	103.2	105.9	145.9	181.8	130.3
122.5°	159.9	120.5	117.5	134.6	164.5	134.6	117.5	120.5	159.9	195.0	147.6
125°	172.6	134.6	131.3	148.4	179.6	148.4	131.3	134.6	172.6	206.8	163.7
127.5°	185.3	149.3	146.1	162.2	192.8	162.2	146.1	149.3	185.3	217.5	179.8
130°	197.3	163.3	160.6	175.2	204.3	175.2	160.6	163.3	197.3	227.2	194.8
132.5°	208.8	177.5	175.6	188.5	215.4	188.5	175.6	177.5	208.8	236.3	209.1
135°	219.2	190.7	189.9	201.0	223.8	201.0	189.9	190.7	219.2	244.7	221.8
137.5°	228.4	203.1	203.2	212.8	230.3	212.8	203.2	203.1	228.4	252.6	233.6
140°	237.1	214.6	216.7	223.7	235.7	223.7	216.7	214.6	237.1	259.6	244.5
142.5°	244.7	223.3	228.0	232.1	241.4	232.1	228.0	223.3	244.7	266.2	254.0
145°	251.9	231.3	236.7	239.6	248.4	239.6	236.7	231.3	251.9	273.0	262.9
147.5°	258.7	238.3	244.1	246.6	256.0	246.6	244.1	238.3	258.7	278.8	269.6
150°	264.9	246.6	251.1	255.6	264.1	255.6	251.1	246.6	264.9	284.5	276.6
152.5°	270.7	254.2	258.7	263.9	271.5	263.9	258.7	254.2	270.7	289.5	282.2
155°	276.3	261.9	266.3	271.7	278.9	271.7	266.3	261.9	276.3	294.2	287.4
157.5°	281.0	268.5	273.2	278.3	285.3	278.3	273.2	268.5	281.0	297.9	291.9
160°	285.1	274.6	279.2	284.1	290.7	284.1	279.2	274.6	285.1	300.8	295.8
162.5°	288.6	280.2	284.1	289.1	294.8	289.1	284.1	280.2	288.6	303.3	298.8
165°	291.7	284.8	288.2	292.8	297.9	292.8	288.2	284.8	291.7	304.7	301.2
167.5°	294.3	288.6	291.3	295.2	299.5	295.2	291.3	288.6	294.3	305.8	303.3
170°	296.3	291.9	293.2	296.9	300.4	296.9	293.2	291.9	296.3	306.2	304.5
172.5°	298.1	294.6	294.6	297.3	300.4	297.3	294.6	294.6	298.1	305.5	304.7
175°	299.2	296.9	296.1	297.5	300.0	297.5	296.1	296.9	299.2	303.9	304.1
177.5°	299.9	298.9	297.5	297.9	300.0	297.9	297.5	298.9	299.9	302.2	301.6
180°	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1



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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°	5.1	5.7	5.1	4.9	4.5	3.0
95°	8.8	9.2	8.8	8.8	8.6	6.0
97.5°	12.7	13.1	12.7	13.1	17.5	9.8
100°	17.1	17.5	17.1	18.2	34.5	17.9
102.5°	21.8	22.0	21.8	25.1	54.8	31.3
105°	27.5	27.1	27.5	35.2	76.6	47.6
107.5°	35.0	33.4	35.0	47.1	97.1	64.5
110°	44.4	41.4	44.4	62.4	117.5	82.2
112.5°	54.8	50.4	54.8	78.3	135.7	98.9
115°	66.7	61.0	66.7	95.6	151.9	114.9
117.5°	80.6	72.9	80.6	113.4	167.6	131.1
120°	95.2	85.7	95.2	130.3	181.8	145.9
122.5°	111.1	100.2	111.1	147.6	195.0	159.9
125°	126.8	114.6	126.8	163.7	206.8	172.6
127.5°	144.1	130.7	144.1	179.8	217.5	185.3
130°	160.3	146.7	160.3	194.8	227.2	197.3
132.5°	177.5	163.7	177.5	209.1	236.3	208.8
135°	193.2	179.8	193.2	221.8	244.7	219.2
137.5°	208.2	195.6	208.2	233.6	252.6	228.4
140°	222.4	210.9	222.4	244.5	259.6	237.1
142.5°	235.4	225.1	235.4	254.0	266.2	244.7
145°	247.2	238.3	247.2	262.9	273.0	251.9
147.5°	257.9	250.3	257.9	269.6	278.8	258.7
150°	268.0	261.9	268.0	276.6	284.5	264.9
152.5°	276.5	271.7	276.5	282.2	289.5	270.7
155°	282.9	280.2	282.9	287.4	294.2	276.3
157.5°	287.8	286.2	287.8	291.9	297.9	281.0
160°	292.2	290.9	292.2	295.8	300.8	285.1
162.5°	296.2	295.2	296.2	298.8	303.3	288.6
165°	299.2	298.5	299.2	301.2	304.7	291.7
167.5°	301.4	301.1	301.4	303.3	305.8	294.3
170°	303.1	303.3	303.1	304.5	306.2	296.3
172.5°	304.4	304.7	304.4	304.7	305.5	298.1
175°	304.1	305.4	304.1	304.1	303.9	299.2
177.5°	302.5	304.7	302.5	301.6	302.2	299.9
180°	300.1	300.1	300.1	300.1	300.1	300.1

(END OF REPORT)