

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: LUMIERE

Report Number: 19053

Luminaire Tested: **6002A-MH70PAR30L-SP-15DEGREETILT**

Issue Date: 3/3/2020

**Test Information**

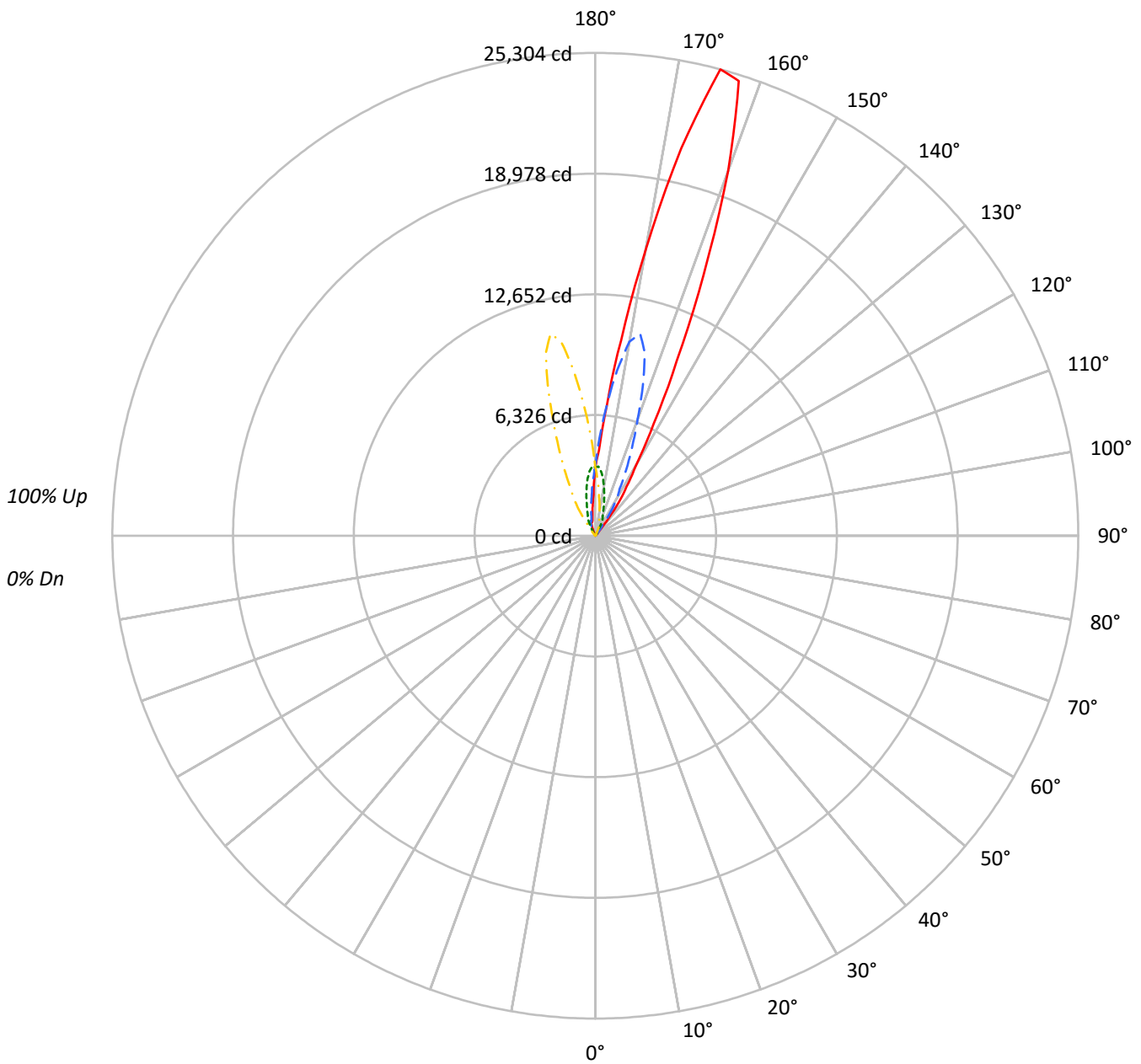
Test Method: LM-46-04  
Report Number: 19053  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 6002A-MH70PAR30L-SP-15DEGREETILT  
Description: WITH PAR LAMP AND TWO CLEAR GLASS LENS  
  
Light Source: ONE SYL. 70 WATT MH LAMP  
  
PMCP70PAR30LN/U/830/SP. LUMEN RATING = 4400 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 4400 (1 lamp)  
Luminaire Lumens: 3961.5 lumens  
Efficiency: 90.0%  
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<sub>in</sub>): 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	86	86	86	86	73	73	73	73	50	50	50	29	29	29	9	9	9	0	0	0	0
1	78	74	71	68	66	64	61	59	44	42	41	25	24	24	8	8	8	0	0	0	0
2	71	65	60	56	60	56	51	48	38	36	34	22	21	20	7	7	6	0	0	0	0
3	65	57	51	46	55	49	44	40	33	30	28	19	18	17	6	6	5	0	0	0	0
4	59	50	44	39	50	43	38	34	30	26	24	17	15	14	6	5	5	0	0	0	0
5	54	44	38	33	46	38	33	28	26	23	20	15	13	12	5	4	4	0	0	0	0
6	49	39	33	28	42	34	28	24	23	20	17	14	12	10	4	4	3	0	0	0	0
7	45	35	29	24	39	30	25	21	21	17	15	12	10	9	4	3	3	0	0	0	0
8	42	32	25	21	36	27	22	18	19	15	13	11	9	8	4	3	3	0	0	0	0
9	39	29	23	18	33	25	20	16	17	14	11	10	8	7	3	3	2	0	0	0	0
10	36	26	20	16	31	22	17	14	16	12	10	9	7	6	3	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°	0.5	0.0	0.0
100°-110°	0.5	0.0	0.0
110°-120°	0.5	0.0	0.0
120°-130°	0.8	0.0	0.0
130°-140°	21.9	0.6	0.5
140°-150°	326.8	8.2	7.4
150°-160°	1288.6	32.5	29.3
160°-170°	1866.2	47.1	42.4
170°-180°	455.5	11.5	10.4
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°	1.6	0.0	0.0
90°-150°	351.1	8.9	8.0
90°-180°	3961.0	100.0	90.0
0°-180°	3961.5	100.0	90.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
90°	0	0	0	0	0	
95°	0	0	0	0	0	1
105°	0	0	0	0	0	1
115°	0	0	0	0	0	0
125°	0	0	0	0	0	2
135°	105	9	0	9	105	98
145°	2156	75	18	75	2156	1274
155°	10096	821	88	821	10096	4851
165°	25304	1737	812	1737	25304	6391
175°	6841	3399	1554	3399	6841	914
180°	3595	3595	3595	3595	3595	



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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°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
95°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
97.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
102.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
105°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
107.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
110°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
112.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
115°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
117.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
122.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
127.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
130°	18.0	18.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
132.5°	61.6	44.1	18.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
135°	105.2	61.6	44.1	18.0	9.2	0.5	0.5	0.5	0.5	0.5	0.5
137.5°	175.0	131.4	61.6	18.0	18.0	0.5	0.5	0.5	0.5	0.5	0.5
140°	340.8	253.5	105.2	61.6	31.0	18.0	0.5	0.5	0.5	0.5	0.5
142.5°	934.1	724.7	236.1	87.8	52.9	44.1	18.0	18.0	0.5	18.0	18.0
145°	2155.6	1850.2	663.6	175.0	74.7	61.6	44.1	18.0	18.0	18.0	44.1
147.5°	3045.6	2897.3	1536.1	297.2	140.1	87.8	61.6	18.0	18.0	18.0	61.6
150°	4240.9	4049.0	2260.3	742.1	257.9	131.4	87.8	61.6	44.1	61.6	87.8
152.5°	6622.9	6003.4	2748.9	1274.4	489.1	236.1	105.2	87.8	61.6	87.8	105.2
155°	10095.6	9284.1	3813.4	1684.5	820.7	471.7	209.9	131.4	87.8	131.4	209.9
157.5°	14807.2	14100.4	5026.2	1893.9	1034.4	785.8	428.0	253.5	175.0	253.5	428.0
160°	20347.7	20216.8	6474.6	2365.0	1147.9	811.9	724.7	489.1	358.2	489.1	724.7
162.5°	24989.5	25949.2	8289.4	2897.3	1396.5	829.4	811.9	785.8	681.1	785.8	811.9
165°	25303.6	27327.8	9973.4	3560.4	1736.8	1047.5	785.8	768.3	811.9	768.3	785.8
167.5°	20792.7	23349.1	10845.9	4258.4	2164.3	1361.6	934.1	785.8	742.1	785.8	934.1
170°	15208.5	17293.8	10331.1	4790.6	2600.6	1728.1	1239.5	977.7	855.6	977.7	1239.5
172.5°	10313.7	11674.8	8734.4	5008.8	3045.6	2190.5	1640.8	1344.2	1152.2	1344.2	1640.8
175°	6841.1	7818.3	6858.5	4834.3	3399.0	2722.8	2155.6	1806.6	1553.6	1806.6	2155.6
177.5°	4476.5	5130.9	5130.9	4432.9	3630.2	3324.8	2879.8	2495.9	2155.6	2495.9	2879.8
180°	3595.3	3595.3	3595.3	3595.3	3595.3	3595.3	3595.3	3595.3	3595.3	3595.3	3595.3



TEST NUMBER: 19053

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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°	0.5	0.5	0.5	0.5	0.5	0.5
95°	0.5	0.5	0.5	0.5	0.5	0.5
97.5°	0.5	0.5	0.5	0.5	0.5	0.5
100°	0.5	0.5	0.5	0.5	0.5	0.5
102.5°	0.5	0.5	0.5	0.5	0.5	0.5
105°	0.5	0.5	0.5	0.5	0.5	0.5
107.5°	0.5	0.5	0.5	0.5	0.5	0.5
110°	0.5	0.5	0.5	0.5	0.5	0.5
112.5°	0.5	0.5	0.5	0.5	0.5	0.5
115°	0.5	0.5	0.5	0.5	0.5	0.5
117.5°	0.5	0.5	0.5	0.5	0.5	0.5
120°	0.5	0.5	0.5	0.5	0.5	0.5
122.5°	0.5	0.5	0.5	0.5	0.5	0.5
125°	0.5	0.5	0.5	0.5	0.5	0.5
127.5°	0.5	0.5	0.5	0.5	0.5	0.5
130°	0.5	0.5	0.5	0.5	18.0	18.0
132.5°	0.5	0.5	0.5	18.0	44.1	61.6
135°	0.5	9.2	18.0	44.1	61.6	105.2
137.5°	0.5	18.0	18.0	61.6	131.4	175.0
140°	18.0	31.0	61.6	105.2	253.5	340.8
142.5°	44.1	52.9	87.8	236.1	724.7	934.1
145°	61.6	74.7	175.0	663.6	1850.2	2155.6
147.5°	87.8	140.1	297.2	1536.1	2897.3	3045.6
150°	131.4	257.9	742.1	2260.3	4049.0	4240.9
152.5°	236.1	489.1	1274.4	2748.9	6003.4	6622.9
155°	471.7	820.7	1684.5	3813.4	9284.1	10095.6
157.5°	785.8	1034.4	1893.9	5026.2	14100.4	14807.2
160°	811.9	1147.9	2365.0	6474.6	20216.8	20347.7
162.5°	829.4	1396.5	2897.3	8289.4	25949.2	24989.5
165°	1047.5	1736.8	3560.4	9973.4	27327.8	25303.6
167.5°	1361.6	2164.3	4258.4	10845.9	23349.1	20792.7
170°	1728.1	2600.6	4790.6	10331.1	17293.8	15208.5
172.5°	2190.5	3045.6	5008.8	8734.4	11674.8	10313.7
175°	2722.8	3399.0	4834.3	6858.5	7818.3	6841.1
177.5°	3324.8	3630.2	4432.9	5130.9	5130.9	4476.5
180°	3595.3	3595.3	3595.3	3595.3	3595.3	3595.3

(END OF REPORT)