

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: 19055

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

Issue Date: 3/3/2020

**Test Information**

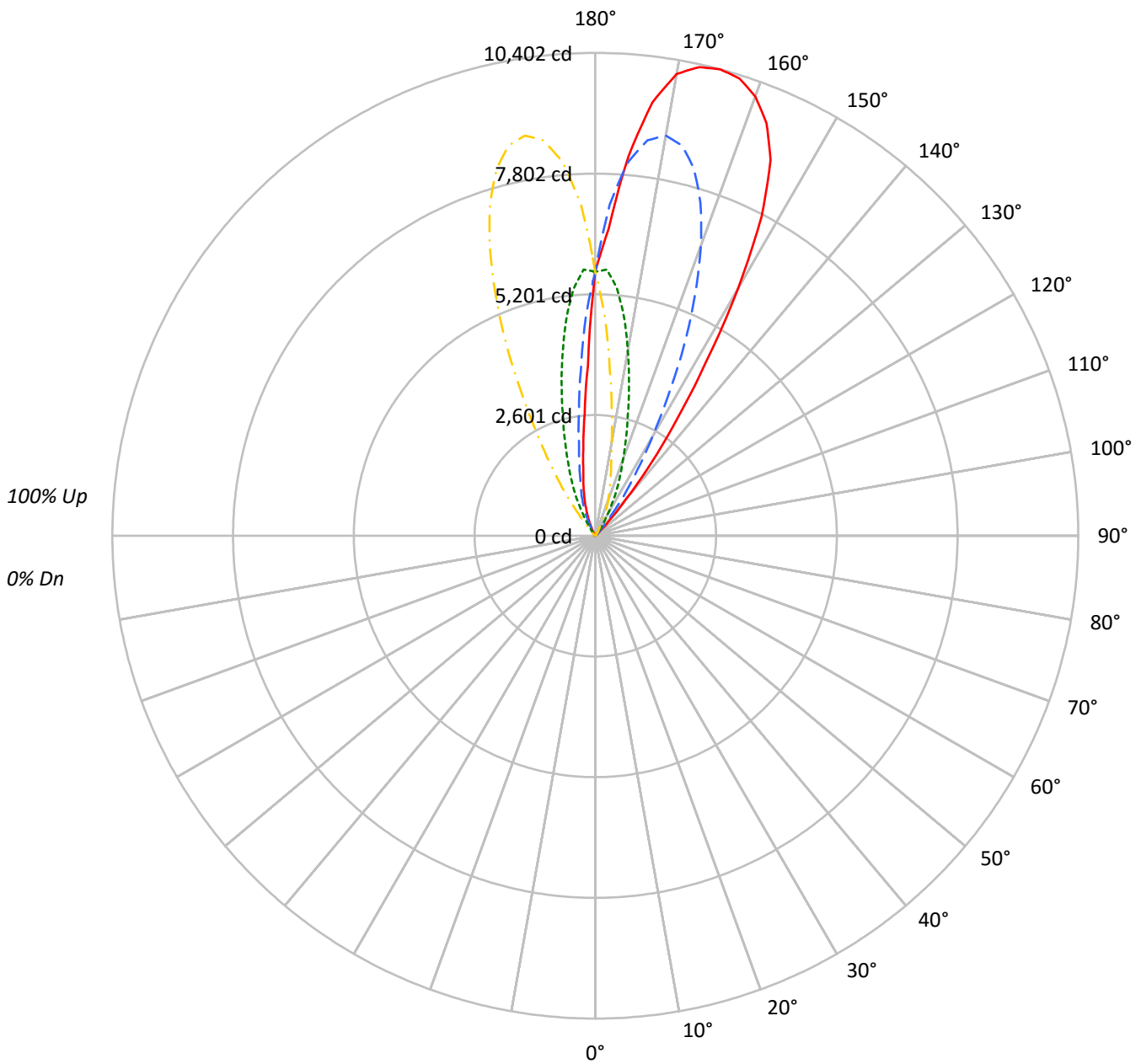
Test Method: LM-46-04  
Report Number: 19055  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 6002A-MH70PAR30L-FL-15DEGREETILT  
Description: WITH PAR LAMP AND TWO CLEAR GLASS LENS  
  
Light Source: ONE SYL. 70 WATT MH LAMP  
  
PMCP70PAR30LN/U/830/FL. LUMEN RATING = 4400 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 4400 (1 lamp)  
Luminaire Lumens: 3475.1 lumens  
Efficiency: 79.0%  
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	75	75	75	75	64	64	64	64	44	44	44	25	25	25	8	8	8	0
1	68	65	62	60	58	56	54	52	38	37	36	22	21	21	7	7	7	0
2	62	57	52	49	53	49	45	42	33	31	29	19	18	17	6	6	6	0
3	57	50	45	40	48	43	38	35	29	27	25	17	16	14	5	5	5	0
4	52	44	38	34	44	38	33	29	26	23	21	15	13	12	5	4	4	0
5	47	39	33	29	40	33	29	25	23	20	18	13	12	10	4	4	3	0
6	43	35	29	25	37	30	25	21	21	17	15	12	10	9	4	3	3	0
7	40	31	25	21	34	27	22	18	18	15	13	11	9	8	3	3	3	0
8	37	28	22	18	31	24	19	16	17	14	11	10	8	7	3	3	2	0
9	34	25	20	16	29	22	17	14	15	12	10	9	7	6	3	2	2	0
10	32	23	18	14	27	20	15	12	14	11	9	8	6	5	3	2	2	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°	1.5	0.0	0.0
110°-120°	2.9	0.1	0.1
120°-130°	5.4	0.2	0.1
130°-140°	58.4	1.7	1.3
140°-150°	477.4	13.7	10.9
150°-160°	1181.8	34.0	26.9
160°-170°	1224.0	35.2	27.8
170°-180°	523.2	15.1	11.9
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°	4.9	0.1	0.1
90°-150°	546.1	15.7	12.4
90°-180°	3475.0	100.0	79.0
0°-180°	3475.1	100.0	79.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
90°	0	0	0	0	0	
95°	0	0	0	0	0	1
105°	0	0	6	0	0	1
115°	6	0	6	0	6	5
125°	6	3	6	3	6	13
135°	188	31	13	31	188	239
145°	3059	179	44	179	3059	1988
155°	8930	1077	201	1077	8930	3930
165°	10402	2710	940	2710	10402	2916
175°	8214	5342	2628	5342	8214	840
180°	5685	5685	5685	5685	5685	



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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	5.6	0.5	0.5
105°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5.6	5.6	5.6	0.5
107.5°	0.5	0.5	0.5	0.5	0.5	0.5	5.6	5.6	5.6	5.6	5.6
110°	0.5	0.5	0.5	0.5	0.5	0.5	5.6	5.6	5.6	5.6	5.6
112.5°	5.6	0.5	0.5	0.5	0.5	0.5	5.6	5.6	13.3	5.6	5.6
115°	5.6	5.6	0.5	0.5	0.5	0.5	5.6	5.6	5.6	5.6	5.6
117.5°	5.6	5.6	0.5	0.5	0.5	0.5	5.6	5.6	5.6	5.6	5.6
120°	5.6	5.6	0.5	0.5	0.5	0.5	5.6	5.6	5.6	5.6	5.6
122.5°	5.6	5.6	5.6	0.5	3.1	0.5	5.6	5.6	5.6	5.6	5.6
125°	5.6	5.6	5.6	0.5	3.1	0.5	5.6	5.6	5.6	5.6	5.6
127.5°	18.5	13.3	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
130°	51.9	39.0	18.5	5.6	9.5	5.6	5.6	5.6	5.6	5.6	5.6
132.5°	100.7	69.8	44.2	18.5	15.9	13.3	5.6	5.6	5.6	5.6	5.6
135°	188.0	144.3	69.8	39.0	31.3	26.2	13.3	5.6	13.3	5.6	13.3
137.5°	452.5	326.7	118.6	57.0	50.6	31.3	26.2	13.3	13.3	13.3	26.2
140°	1035.5	765.8	275.3	95.5	73.7	51.9	31.3	26.2	26.2	26.2	31.3
142.5°	1988.3	1562.0	609.2	162.3	109.7	69.8	44.2	31.3	31.3	31.3	44.2
145°	3059.3	2383.9	1153.7	339.5	179.0	100.7	62.1	44.2	44.2	44.2	62.1
147.5°	4415.4	3436.9	1693.0	583.5	313.8	157.2	95.5	62.1	62.1	62.1	95.5
150°	6138.7	4929.0	2440.4	909.7	521.9	270.2	139.2	87.8	87.8	87.8	139.2
152.5°	7751.6	6521.4	3372.7	1323.2	778.7	465.4	226.5	126.3	126.3	126.3	226.5
155°	8930.4	7818.3	4520.7	1857.4	1076.6	735.0	401.2	208.5	200.8	208.5	401.2
157.5°	9626.4	8740.4	5612.2	2489.2	1392.5	961.0	614.3	344.6	339.5	344.6	614.3
160°	10070.7	9331.1	6652.3	3115.8	1740.5	1197.3	809.5	557.8	521.9	557.8	809.5
162.5°	10327.6	9762.5	7525.6	3855.5	2188.7	1467.0	1015.0	758.1	714.5	758.1	1015.0
165°	10402.0	10006.5	8195.9	4664.5	2710.0	1775.2	1253.8	971.3	940.5	971.3	1253.8
167.5°	10340.4	10119.5	8609.4	5473.5	3354.7	2270.9	1574.9	1253.8	1184.5	1253.8	1574.9
170°	10101.5	10039.9	8753.2	6095.0	4039.1	2866.7	2032.0	1649.3	1487.5	1649.3	2032.0
172.5°	9413.2	9544.2	8591.4	6539.3	4744.1	3624.3	2710.0	2214.4	1962.7	2214.4	2710.0
175°	8213.9	8583.7	8082.9	6685.7	5342.5	4464.2	3580.7	2997.7	2627.9	2997.7	3580.7
177.5°	6621.5	7148.0	7142.9	6526.5	5740.6	5355.4	4708.2	4138.0	3655.2	4138.0	4708.2
180°	5684.6	5684.6	5684.6	5684.6	5684.6	5684.6	5684.6	5684.6	5684.6	5684.6	5684.6



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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	5.6
115°	0.5	0.5	0.5	0.5	5.6	5.6
117.5°	0.5	0.5	0.5	0.5	5.6	5.6
120°	0.5	0.5	0.5	0.5	5.6	5.6
122.5°	0.5	3.1	0.5	5.6	5.6	5.6
125°	0.5	3.1	0.5	5.6	5.6	5.6
127.5°	5.6	5.6	5.6	5.6	13.3	18.5
130°	5.6	9.5	5.6	18.5	39.0	51.9
132.5°	13.3	15.9	18.5	44.2	69.8	100.7
135°	26.2	31.3	39.0	69.8	144.3	188.0
137.5°	31.3	50.6	57.0	118.6	326.7	452.5
140°	51.9	73.7	95.5	275.3	765.8	1035.5
142.5°	69.8	109.7	162.3	609.2	1562.0	1988.3
145°	100.7	179.0	339.5	1153.7	2383.9	3059.3
147.5°	157.2	313.8	583.5	1693.0	3436.9	4415.4
150°	270.2	521.9	909.7	2440.4	4929.0	6138.7
152.5°	465.4	778.7	1323.2	3372.7	6521.4	7751.6
155°	735.0	1076.6	1857.4	4520.7	7818.3	8930.4
157.5°	961.0	1392.5	2489.2	5612.2	8740.4	9626.4
160°	1197.3	1740.5	3115.8	6652.3	9331.1	10070.7
162.5°	1467.0	2188.7	3855.5	7525.6	9762.5	10327.6
165°	1775.2	2710.0	4664.5	8195.9	10006.5	10402.0
167.5°	2270.9	3354.7	5473.5	8609.4	10119.5	10340.4
170°	2866.7	4039.1	6095.0	8753.2	10039.9	10101.5
172.5°	3624.3	4744.1	6539.3	8591.4	9544.2	9413.2
175°	4464.2	5342.5	6685.7	8082.9	8583.7	8213.9
177.5°	5355.4	5740.6	6526.5	7142.9	7148.0	6621.5
180°	5684.6	5684.6	5684.6	5684.6	5684.6	5684.6

(END OF REPORT)