

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: 19051

Luminaire Tested: **6002A-MH39PAR20-SP-15DEGREETILT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 19051
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 6002A-MH39PAR20-SP-15DEGREETILT
Description: WITH PAR LAMP AND TWO CLEAR GLASS LENS

Light Source: ONE PHILIPS 39 WATT CMH LAMP

CDM35/830/PAR20/SP. LUMEN RATING = 2000 LMS.

Ballast/Driver: -

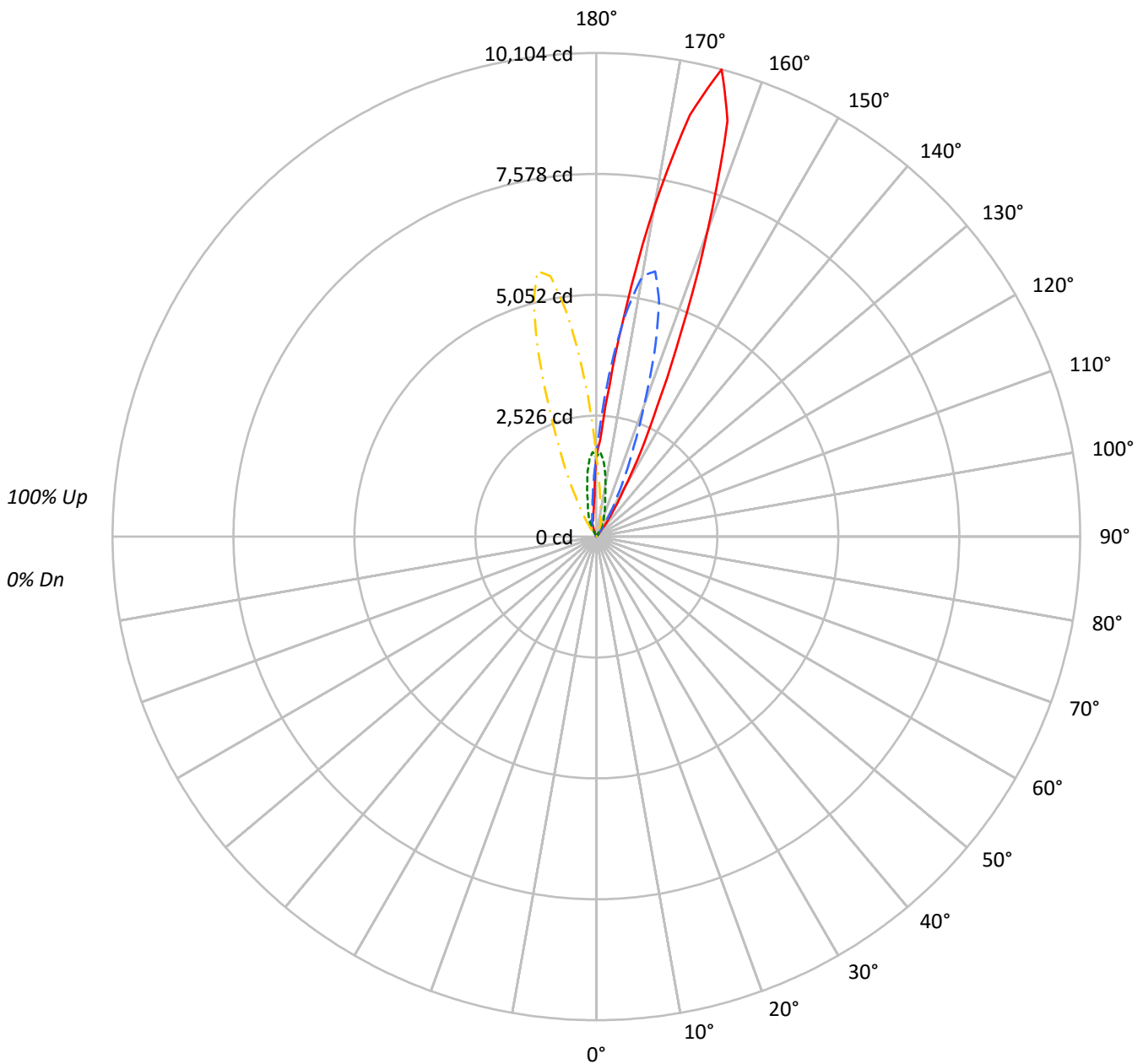
Summary

Lumens per Lamp: 2000 (1 lamp)
Luminaire Lumens: 1597.5 lumens
Efficiency: 79.9%
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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	20		
RCR																				
0	76	76	76	76	65	65	65	65	44	44	44	25	25	25	8	8	8	0		
1	69	66	63	61	59	56	54	52	39	37	36	22	22	21	7	7	7	0		
2	63	58	53	49	54	49	46	43	34	32	30	19	18	17	6	6	6	0		
3	57	50	45	41	49	43	39	35	30	27	25	17	16	15	6	5	5	0		
4	52	44	39	34	44	38	33	30	26	23	21	15	14	12	5	4	4	0		
5	48	39	33	29	41	34	29	25	23	20	18	13	12	11	4	4	3	0		
6	44	35	29	25	37	30	25	22	21	18	15	12	10	9	4	3	3	0		
7	40	31	26	21	34	27	22	19	19	16	13	11	9	8	3	3	3	0		
8	37	28	23	19	32	24	20	16	17	14	12	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	16	13	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°	0.5	0.0	0.0
110°-120°	0.5	0.0	0.0
120°-130°	0.8	0.1	0.0
130°-140°	6.8	0.4	0.3
140°-150°	84.6	5.3	4.2
150°-160°	445.6	27.9	22.3
160°-170°	835.5	52.3	41.8
170°-180°	222.6	13.9	11.1
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°	1.6	0.1	0.1
90°-150°	93.8	5.9	4.7
90°-180°	1598.0	100.0	79.9
0°-180°	1597.5	100.0	79.9

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°	5	0	0	0	5	3
135°	25	5	0	5	25	26
145°	462	30	11	30	462	301
155°	2996	294	35	294	2996	1498
165°	10104	680	356	680	10104	2488
175°	3187	1624	606	1624	3187	427
180°	1658	1658	1658	1658	1658	



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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°	4.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
127.5°	4.6	4.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
130°	4.6	4.6	4.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
132.5°	10.8	10.8	4.6	0.5	2.6	0.5	0.5	0.5	0.5	0.5	0.5
135°	25.1	14.9	10.8	4.6	4.6	4.6	0.5	0.5	0.5	0.5	0.5
137.5°	60.0	41.5	14.9	10.8	7.7	4.6	0.5	0.5	0.5	0.5	0.5
140°	84.6	70.3	35.4	14.9	7.7	4.6	4.6	4.6	4.6	4.6	4.6
142.5°	174.9	146.2	60.0	31.3	15.9	10.8	10.8	4.6	4.6	4.6	10.8
145°	462.2	445.8	166.7	45.6	30.3	21.0	14.9	10.8	10.8	10.8	14.9
147.5°	731.0	712.5	390.4	94.9	38.5	31.3	25.1	14.9	14.9	14.9	25.1
150°	1178.3	1143.5	651.0	230.3	65.1	35.4	31.3	41.5	31.3	41.5	31.3
152.5°	2005.3	1974.5	938.3	417.1	125.7	55.9	31.3	31.3	35.4	31.3	31.3
155°	2996.4	3222.1	1449.2	591.5	293.9	94.9	60.0	41.5	35.4	41.5	60.0
157.5°	4605.2	4970.4	2044.3	811.0	401.7	236.5	94.9	66.2	60.0	66.2	94.9
160°	6774.2	7699.6	2895.9	1026.5	471.4	365.8	230.3	125.7	105.2	125.7	230.3
162.5°	9103.2	11097.7	4018.3	1352.8	584.3	330.9	355.5	306.2	236.5	306.2	355.5
165°	10104.5	13026.6	5060.7	1793.9	679.7	417.1	316.5	326.8	355.5	326.8	316.5
167.5°	9027.2	11703.1	5676.3	2259.8	862.3	501.2	400.6	351.4	337.0	351.4	400.6
170°	7014.2	8776.9	5526.5	2631.2	1100.4	626.4	497.1	421.2	386.3	421.2	497.1
172.5°	4880.2	5951.3	4695.5	2795.3	1383.5	837.7	636.6	521.7	476.6	521.7	636.6
175°	3187.3	3852.1	3591.5	2694.8	1623.6	1098.3	852.1	692.0	605.8	692.0	852.1
177.5°	2064.8	2430.1	2524.5	2315.2	1766.2	1439.0	1196.8	1008.0	866.4	1008.0	1196.8
180°	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7



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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	4.6
127.5°	0.5	0.5	0.5	0.5	4.6	4.6
130°	0.5	0.5	0.5	4.6	4.6	4.6
132.5°	0.5	2.6	0.5	4.6	10.8	10.8
135°	4.6	4.6	4.6	10.8	14.9	25.1
137.5°	4.6	7.7	10.8	14.9	41.5	60.0
140°	4.6	7.7	14.9	35.4	70.3	84.6
142.5°	10.8	15.9	31.3	60.0	146.2	174.9
145°	21.0	30.3	45.6	166.7	445.8	462.2
147.5°	31.3	38.5	94.9	390.4	712.5	731.0
150°	35.4	65.1	230.3	651.0	1143.5	1178.3
152.5°	55.9	125.7	417.1	938.3	1974.5	2005.3
155°	94.9	293.9	591.5	1449.2	3222.1	2996.4
157.5°	236.5	401.7	811.0	2044.3	4970.4	4605.2
160°	365.8	471.4	1026.5	2895.9	7699.6	6774.2
162.5°	330.9	584.3	1352.8	4018.3	11097.7	9103.2
165°	417.1	679.7	1793.9	5060.7	13026.6	10104.5
167.5°	501.2	862.3	2259.8	5676.3	11703.1	9027.2
170°	626.4	1100.4	2631.2	5526.5	8776.9	7014.2
172.5°	837.7	1383.5	2795.3	4695.5	5951.3	4880.2
175°	1098.3	1623.6	2694.8	3591.5	3852.1	3187.3
177.5°	1439.0	1766.2	2315.2	2524.5	2430.1	2064.8
180°	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7

(END OF REPORT)