

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P256284

Luminaire Tested: **HC4R10D010-HM412927-42RMDC**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256284  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-779-41)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC4R10D010-HM412927-42RMDC  
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 741.0 lumens  
Efficiency: N/A  
Efficacy: 74.1 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.03  
Luminous Opening: Circular (Dia: 0.38' x H: 0')  
CIE Type: Direct

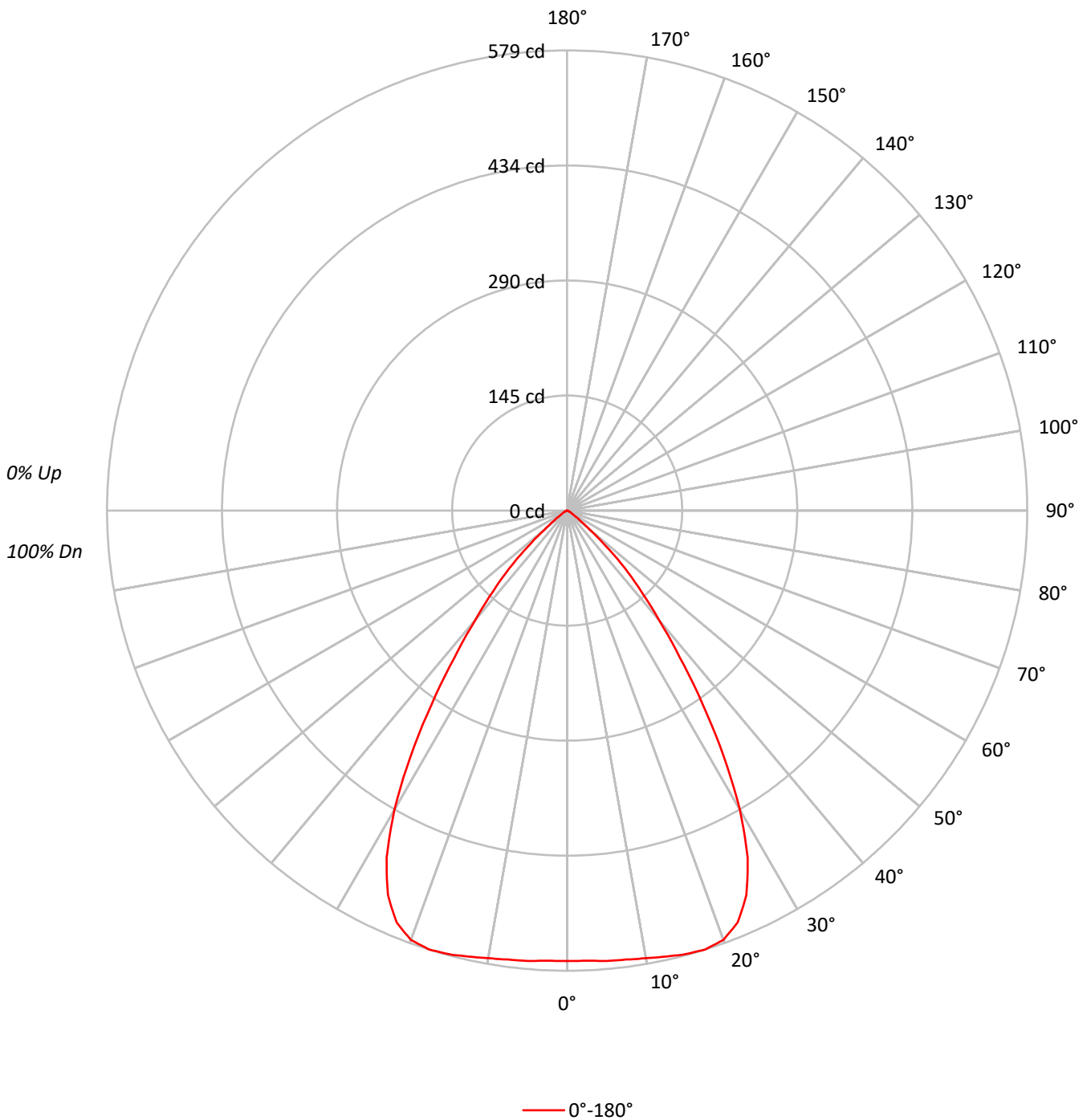
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	113	110	108	105	111	108	106	103	104	102	100		100	99	97		97	96	94	93
2	107	102	97	94	105	100	96	93	97	94	91		94	91	89		91	89	87	85
3	101	94	89	84	99	93	88	84	90	86	82		88	84	81		85	82	80	78
4	95	87	81	77	93	86	80	76	84	79	75		82	78	74		80	76	74	72
5	90	81	75	70	88	80	74	70	78	73	69		76	72	68		75	71	68	66
6	85	75	69	64	83	74	68	64	73	67	63		71	67	63		70	66	63	61
7	80	70	64	59	79	69	63	59	68	63	59		67	62	58		66	61	58	56
8	76	66	59	55	75	65	59	55	64	58	54		63	58	54		62	57	54	52
9	72	61	55	51	71	61	55	51	60	54	50		59	54	50		58	53	50	49
10	68	58	51	47	67	57	51	47	56	51	47		55	50	47		55	50	47	45

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	55239
5°	55646
10°	56586
15°	58298
20°	59614
25°	57401
30°	48941
35°	35323
40°	22887
45°	14196
50°	5610
55°	2039
60°	1169
65°	692
70°	570
75°	377
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.4	7.3
10°-20°	163.4	22.1
20°-30°	240.1	32.4
30°-40°	185.9	25.1
40°-50°	78.9	10.7
50°-60°	13.8	1.9
60°-70°	3.5	0.5
70°-80°	1.1	0.1
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	457.9	61.8
0°-40°	643.8	86.9
0°-60°	736.5	99.4
0°-90°	741.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	741.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	567	
5°	569	54
15°	578	163
25°	534	240
35°	297	186
45°	103	79
55°	12	14
65°	3	3
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	566.8
2.5°	566.8
5°	568.8
7.5°	569.8
10°	571.8
12.5°	574.8
15°	577.8
17.5°	578.8
20°	574.8
22.5°	560.8
25°	533.8
27.5°	491.9
30°	434.9
32.5°	366.9
35°	296.9
37.5°	232.9
40°	179.9
42.5°	138.0
45°	103.0
47.5°	66.0
50°	37.0
52.5°	21.0
55°	12.0
57.5°	8.0
60°	6.0
62.5°	4.0
65°	3.0
67.5°	3.0
70°	2.0
72.5°	1.0
75°	1.0
77.5°	1.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)