

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: P256285

Luminaire Tested: **HC4R10D010-HM412930-42RMDC**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256285  
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-HM412930-42RMDC  
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

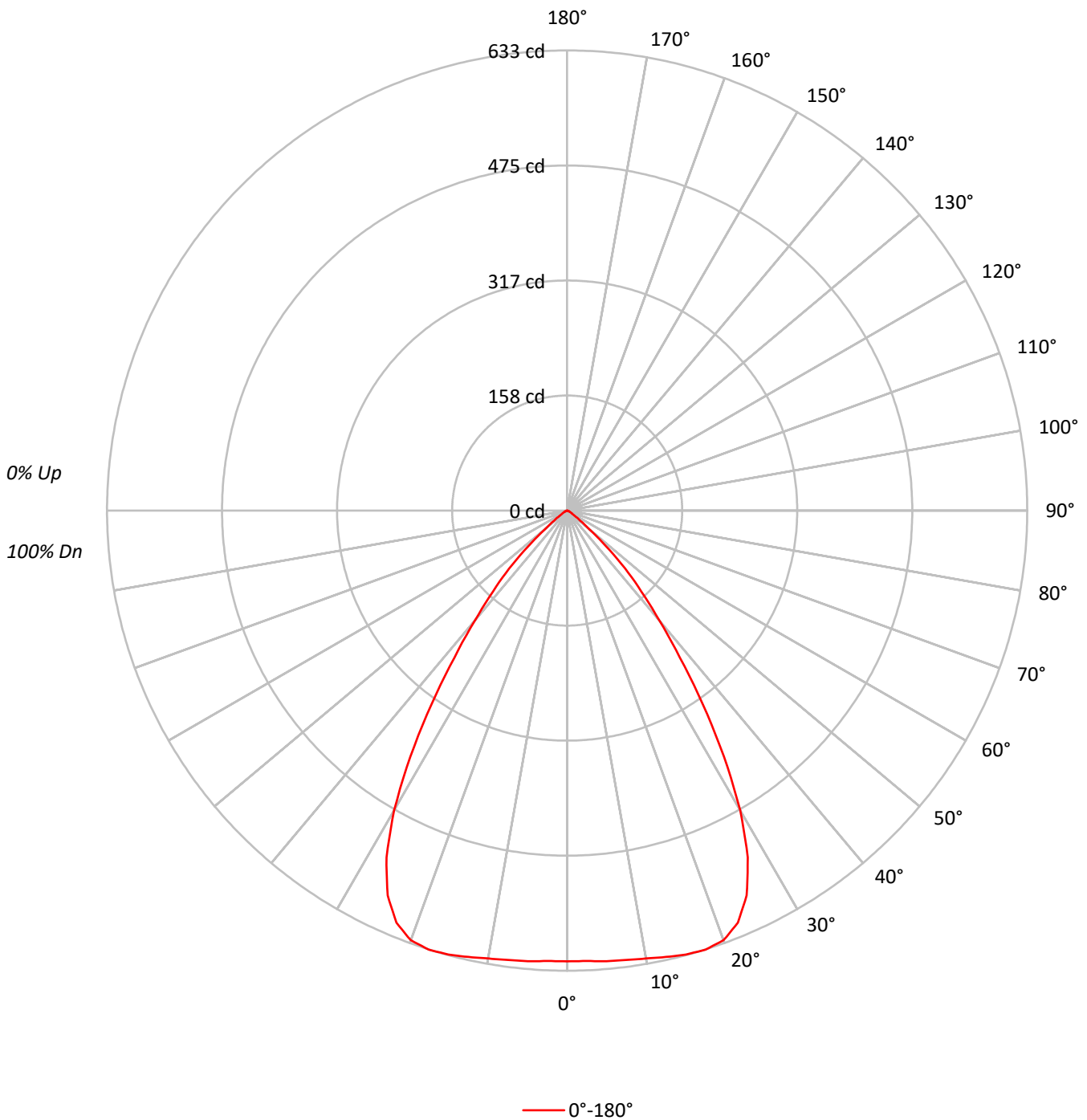
Lumens per Lamp: N/A  
Luminaire Lumens: 810.7 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.03  
Luminous Opening: Circular (Dia: 0.38' x H: 0')  
CIE Type: Direct

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°	60434
5°	60880
10°	61910
15°	63776
20°	65225
25°	62799
30°	53544
35°	38643
40°	25050
45°	15519
50°	6141
55°	2226
60°	1286
65°	761
70°	627
75°	414
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.5	7.3
10°-20°	178.8	22.1
20°-30°	262.7	32.4
30°-40°	203.4	25.1
40°-50°	86.3	10.6
50°-60°	15.1	1.9
60°-70°	3.8	0.5
70°-80°	1.2	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°	500.9	61.8
0°-40°	704.4	86.9
0°-60°	805.7	99.4
0°-90°	810.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	810.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	620	
5°	622	59
15°	632	179
25°	584	263
35°	325	203
45°	113	86
55°	13	15
65°	3	4
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	620.1
2.5°	620.1
5°	622.3
7.5°	623.4
10°	625.6
12.5°	628.9
15°	632.1
17.5°	633.2
20°	628.9
22.5°	613.6
25°	584.0
27.5°	538.1
30°	475.8
32.5°	401.4
35°	324.8
37.5°	254.8
40°	196.9
42.5°	150.9
45°	112.6
47.5°	72.2
50°	40.5
52.5°	23.0
55°	13.1
57.5°	8.7
60°	6.6
62.5°	4.4
65°	3.3
67.5°	3.3
70°	2.2
72.5°	1.1
75°	1.1
77.5°	1.1
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)