

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: P256312

Luminaire Tested: **HC4R40D010-HM434827-42RMDC**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256312  
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: HC4R40D010-HM434827-42RMDC  
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3538.1 lumens  
Efficiency: N/A  
Efficacy: 88.5 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

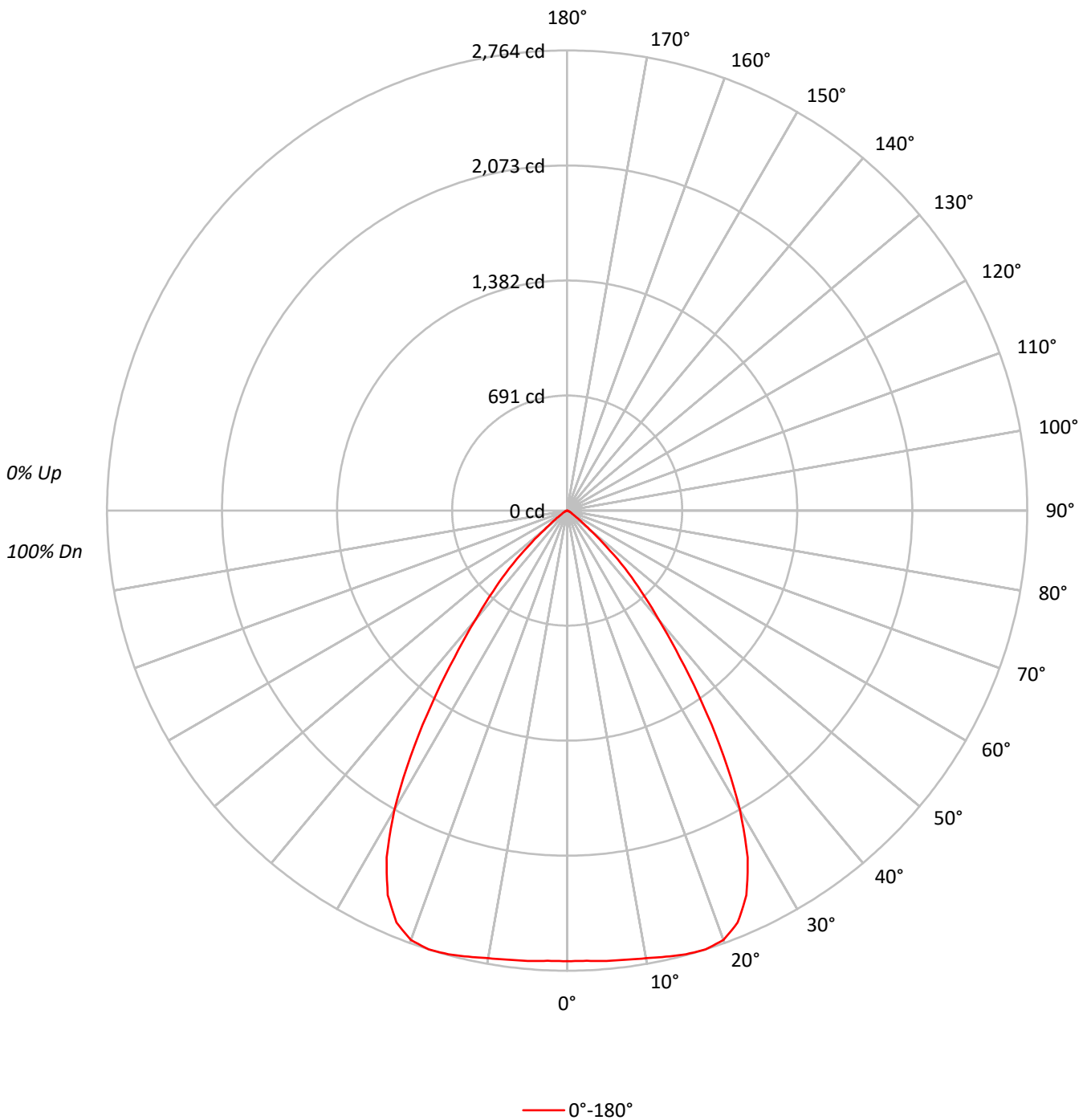
Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	263770
5°	265707
10°	270195
15°	278372
20°	284660
25°	274091
30°	233667
35°	168670
40°	109310
45°	67769
50°	26776
55°	9736
60°	5575
65°	3298
70°	2707
75°	1807
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.6	7.3
10°-20°	780.2	22.1
20°-30°	1146.5	32.4
30°-40°	887.7	25.1
40°-50°	376.8	10.6
50°-60°	65.7	1.9
60°-70°	16.5	0.5
70°-80°	5.0	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°	2186.3	61.8
0°-40°	3074.1	86.9
0°-60°	3516.6	99.4
0°-90°	3538.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3538.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2706	
5°	2716	260
15°	2759	780
25°	2549	1147
35°	1418	888
45°	492	377
55°	57	66
65°	14	16
75°	5	5
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2706.5
2.5°	2706.5
5°	2716.0
7.5°	2720.8
10°	2730.3
12.5°	2744.7
15°	2759.0
17.5°	2763.7
20°	2744.7
22.5°	2677.8
25°	2548.9
27.5°	2348.5
30°	2076.4
32.5°	1751.8
35°	1417.7
37.5°	1112.2
40°	859.2
42.5°	658.7
45°	491.7
47.5°	315.0
50°	176.6
52.5°	100.2
55°	57.3
57.5°	38.2
60°	28.6
62.5°	19.1
65°	14.3
67.5°	14.3
70°	9.5
72.5°	4.8
75°	4.8
77.5°	4.8
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)