

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: P256300

Luminaire Tested: **HC4R20D010-HM412927-42RMDC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P256300
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: HC4R20D010-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: 1399.2 lumens
Efficiency: N/A
Efficacy: 70.0 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

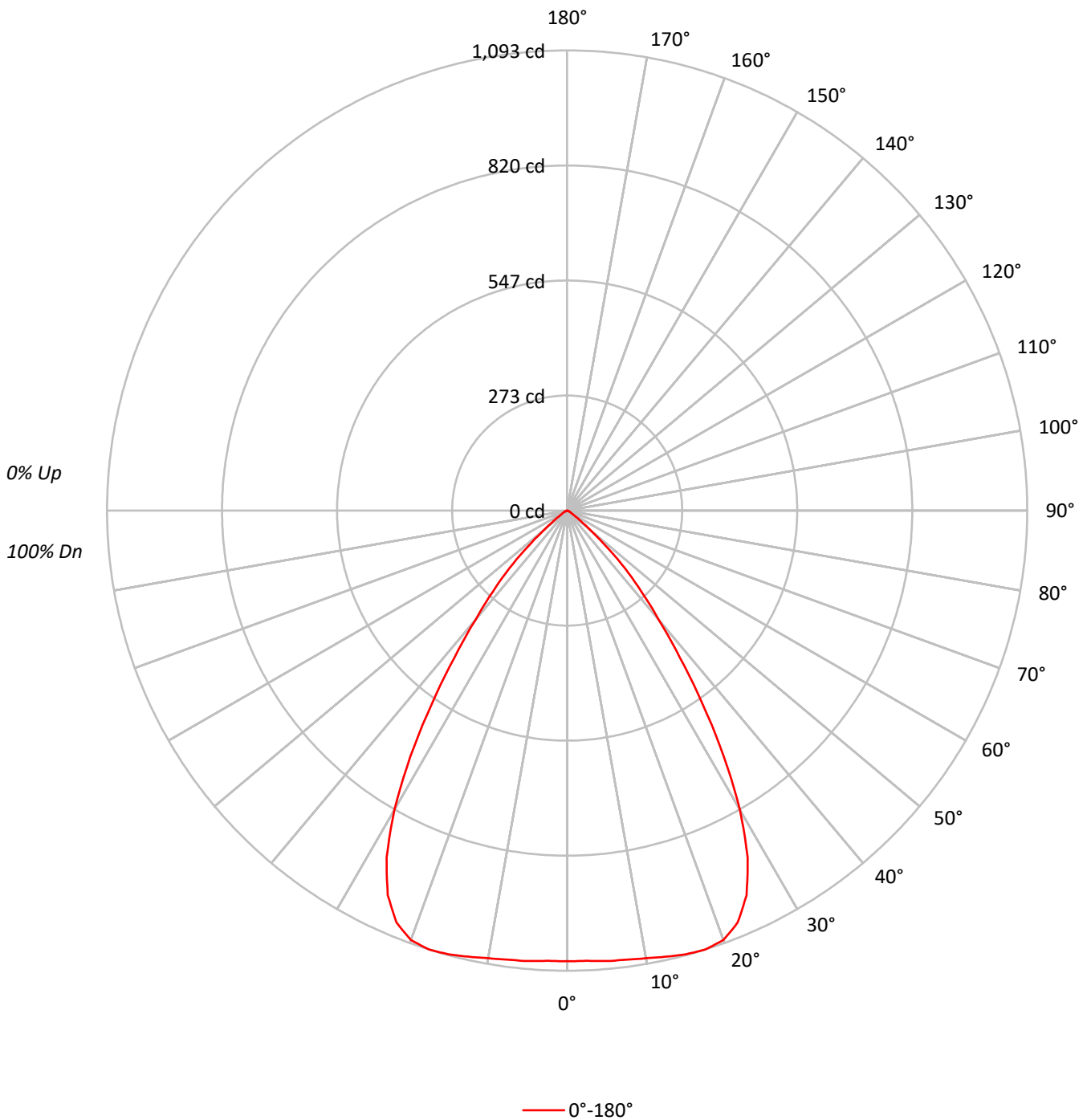
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	104309
5°	105080
10°	106849
15°	110078
20°	112570
25°	108393
30°	92402
35°	66697
40°	43230
45°	26793
50°	10583
55°	3857
60°	2203
65°	1314
70°	1083
75°	715
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	7.3
10°-20°	308.5	22.1
20°-30°	453.4	32.4
30°-40°	351.1	25.1
40°-50°	149.0	10.6
50°-60°	26.0	1.9
60°-70°	6.6	0.5
70°-80°	2.0	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°	864.6	61.8
0°-40°	1215.6	86.9
0°-60°	1390.6	99.4
0°-90°	1399.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1399.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1070	
5°	1074	103
15°	1091	309
25°	1008	453
35°	561	351
45°	194	149
55°	23	26
65°	6	7
75°	2	2
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	1070.3
2.5°	1070.3
5°	1074.1
7.5°	1075.9
10°	1079.7
12.5°	1085.4
15°	1091.0
17.5°	1092.9
20°	1085.4
22.5°	1058.9
25°	1008.0
27.5°	928.7
30°	821.1
32.5°	692.8
35°	560.6
37.5°	439.8
40°	339.8
42.5°	260.5
45°	194.4
47.5°	124.6
50°	69.8
52.5°	39.6
55°	22.7
57.5°	15.1
60°	11.3
62.5°	7.6
65°	5.7
67.5°	5.7
70°	3.8
72.5°	1.9
75°	1.9
77.5°	1.9
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)