

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: P256299

Luminaire Tested: **HC4R20D010-HM412840-42RMDC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P256299
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-HM412840-42RMDC
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1882.1 lumens
Efficiency: N/A
Efficacy: 94.1 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

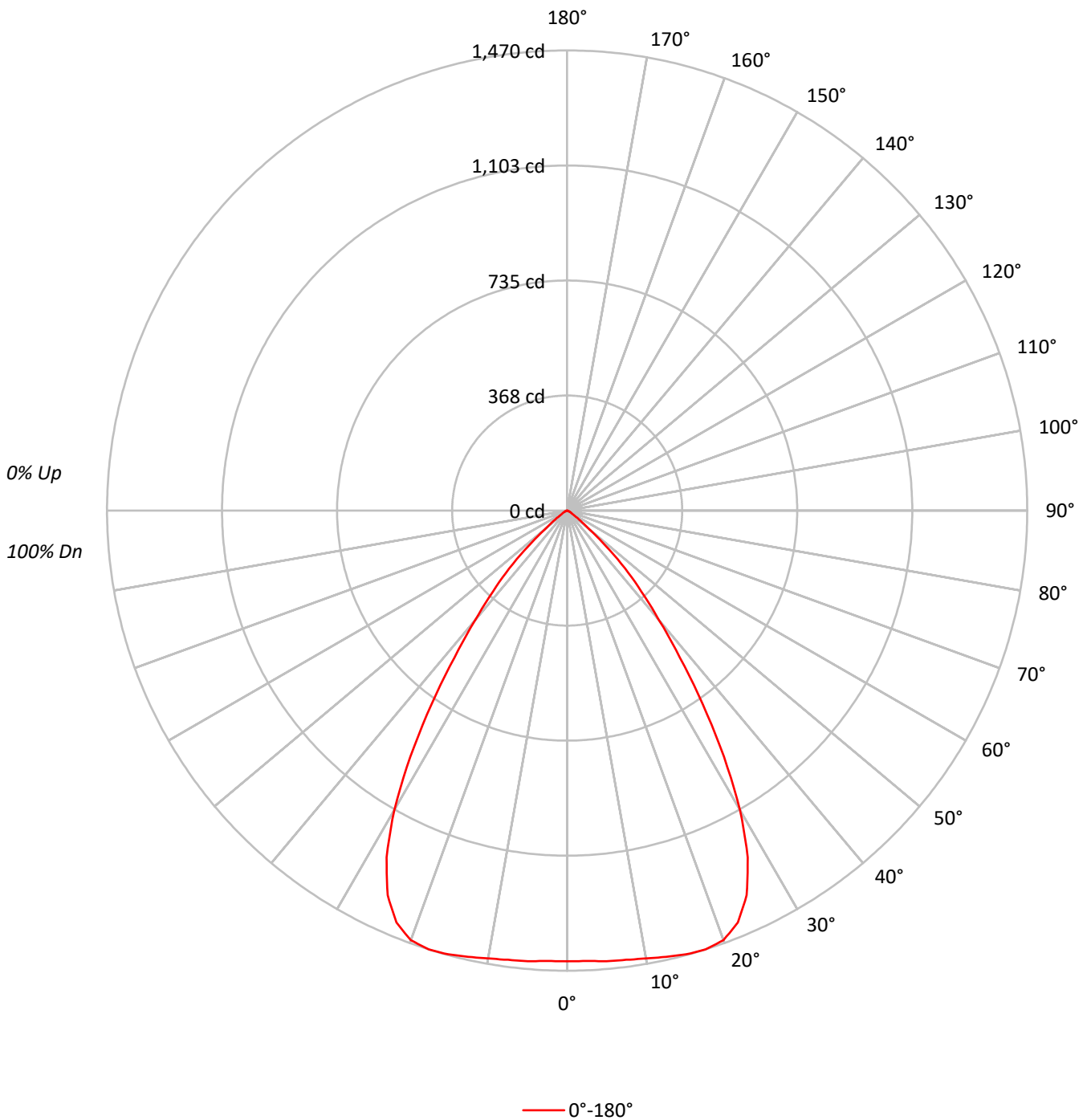
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	140320
5°	141345
10°	143742
15°	148085
20°	151431
25°	145815
30°	124306
35°	89730
40°	58153
45°	36042
50°	14252
55°	5182
60°	2963
65°	1753
70°	1453
75°	941
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	7.3
10°-20°	415.1	22.1
20°-30°	609.9	32.4
30°-40°	472.3	25.1
40°-50°	200.4	10.6
50°-60°	35.0	1.9
60°-70°	8.8	0.5
70°-80°	2.6	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°	1163.1	61.8
0°-40°	1635.3	86.9
0°-60°	1870.7	99.4
0°-90°	1882.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1882.1	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1440	
5°	1445	138
15°	1468	415
25°	1356	610
35°	754	472
45°	262	200
55°	30	35
65°	8	9
75°	2	3
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1439.8
2.5°	1439.8
5°	1444.8
7.5°	1447.4
10°	1452.5
12.5°	1460.1
15°	1467.7
17.5°	1470.2
20°	1460.1
22.5°	1424.5
25°	1356.0
27.5°	1249.3
30°	1104.6
32.5°	931.9
35°	754.2
37.5°	591.6
40°	457.1
42.5°	350.4
45°	261.5
47.5°	167.6
50°	94.0
52.5°	53.3
55°	30.5
57.5°	20.3
60°	15.2
62.5°	10.2
65°	7.6
67.5°	7.6
70°	5.1
72.5°	2.5
75°	2.5
77.5°	2.5
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)