

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: P256297

Luminaire Tested: **HC4R20D010-HM412830-42RMDC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P256297
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-HM412830-42RMDC
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1762.0 lumens
Efficiency: N/A
Efficacy: 88.1 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

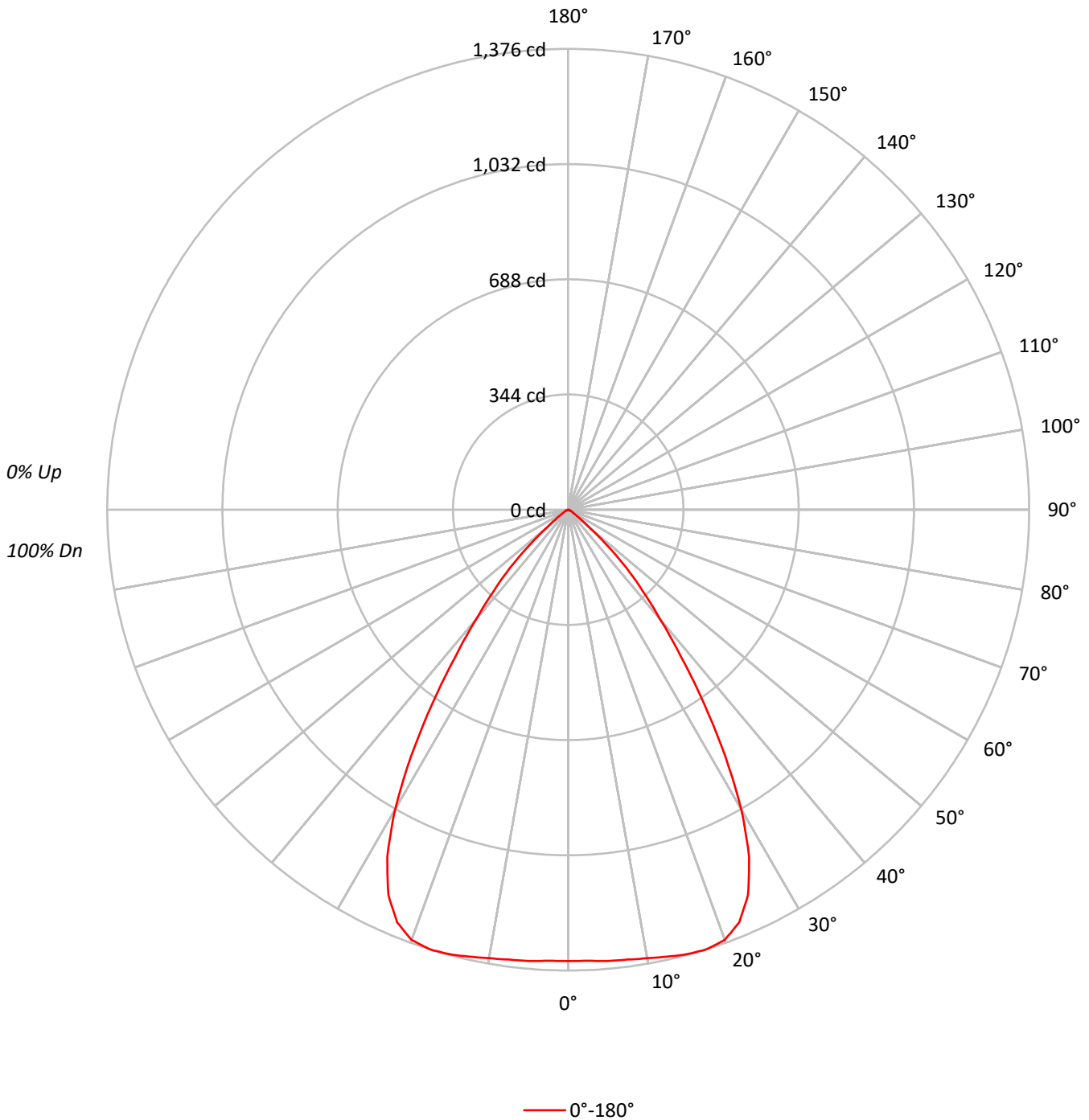
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	131354
5°	132325
10°	134558
15°	138631
20°	141755
25°	136503
30°	116361
35°	83996
40°	54439
45°	33740
50°	13342
55°	4843
60°	2787
65°	1637
70°	1368
75°	904
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	7.3
10°-20°	388.5	22.1
20°-30°	571.0	32.4
30°-40°	442.1	25.1
40°-50°	187.6	10.6
50°-60°	32.7	1.9
60°-70°	8.2	0.5
70°-80°	2.5	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°	1088.8	61.8
0°-40°	1530.9	86.9
0°-60°	1751.2	99.4
0°-90°	1762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1762.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1348	
5°	1353	129
15°	1374	389
25°	1269	571
35°	706	442
45°	245	188
55°	28	33
65°	7	8
75°	2	3
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1347.8
2.5°	1347.8
5°	1352.6
7.5°	1354.9
10°	1359.7
12.5°	1366.8
15°	1374.0
17.5°	1376.3
20°	1366.8
22.5°	1333.6
25°	1269.4
27.5°	1169.5
30°	1034.0
32.5°	872.4
35°	706.0
37.5°	553.9
40°	427.9
42.5°	328.0
45°	244.8
47.5°	156.9
50°	88.0
52.5°	49.9
55°	28.5
57.5°	19.0
60°	14.3
62.5°	9.5
65°	7.1
67.5°	7.1
70°	4.8
72.5°	2.4
75°	2.4
77.5°	2.4
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)