

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: P256301

Luminaire Tested: **HC4R20D010-HM412930-42RMDC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P256301
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-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: 1530.7 lumens
Efficiency: N/A
Efficacy: 76.5 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

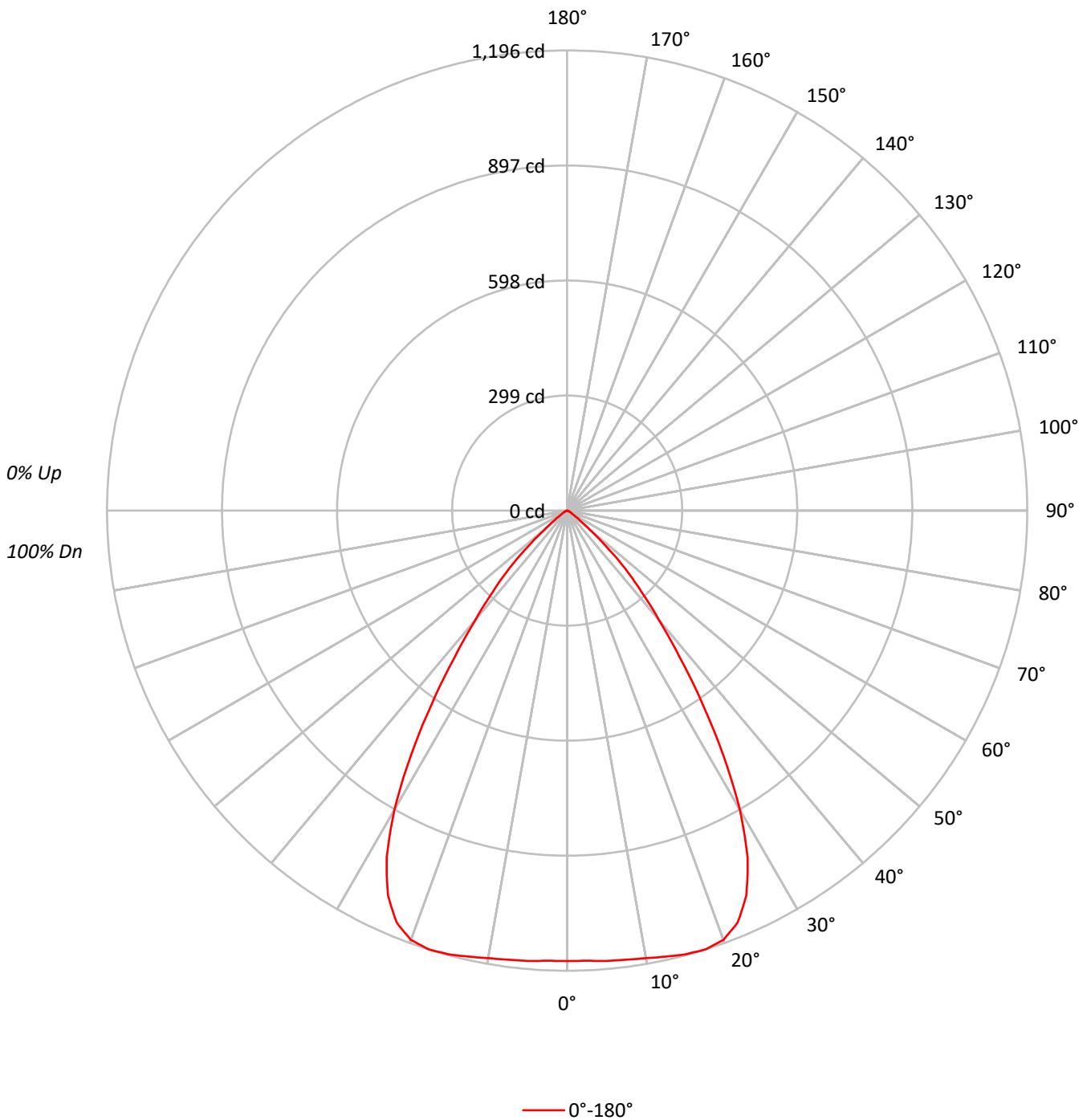
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P256301

CATALOG NUMBER: HC4R20D010-HM412930-42RMDC

Luminous Intensity Polar Plot





TEST NUMBER: P256301

CATALOG NUMBER: HC4R20D010-HM412930-42RMDC

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°	114114
5°	114951
10°	116893
15°	120429
20°	123148
25°	118577
30°	101090
35°	72967
40°	47289
45°	29316
50°	11584
55°	4214
60°	2417
65°	1430
70°	1168
75°	791
80°	0
85°	0



TEST NUMBER: P256301

CATALOG NUMBER: HC4R20D010-HM412930-42RMDC

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.3	7.3
10°-20°	337.5	22.1
20°-30°	496.0	32.4
30°-40°	384.1	25.1
40°-50°	163.0	10.6
50°-60°	28.4	1.9
60°-70°	7.1	0.5
70°-80°	2.2	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°	945.9	61.8
0°-40°	1329.9	86.9
0°-60°	1521.4	99.4
0°-90°	1530.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1530.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1171	
5°	1175	112
15°	1194	338
25°	1103	496
35°	613	384
45°	213	163
55°	25	28
65°	6	7
75°	2	2
85°	0	0
90°	0	



TEST NUMBER: P256301

CATALOG NUMBER: HC4R20D010-HM412930-42RMDC

CANDELA DISTRIBUTION (FULL):

0°	
0°	1170.9
2.5°	1170.9
5°	1175.0
7.5°	1177.1
10°	1181.2
12.5°	1187.4
15°	1193.6
17.5°	1195.7
20°	1187.4
22.5°	1158.5
25°	1102.7
27.5°	1016.0
30°	898.3
32.5°	757.9
35°	613.3
37.5°	481.2
40°	371.7
42.5°	285.0
45°	212.7
47.5°	136.3
50°	76.4
52.5°	43.4
55°	24.8
57.5°	16.5
60°	12.4
62.5°	8.3
65°	6.2
67.5°	6.2
70°	4.1
72.5°	2.1
75°	2.1
77.5°	2.1
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)