

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P284399

Luminaire Tested: **RSQ4089FS1EMWWB-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P284399
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1811-010-20)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RSQ4089FS1EMWWB-4000K
Description: HALO RSQ 4 INCH LED FIXTURE WITH MATT WHITE BAFFLE, SELECTABLE CCT, 90CRI, 4000K
Light Source: (30) 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

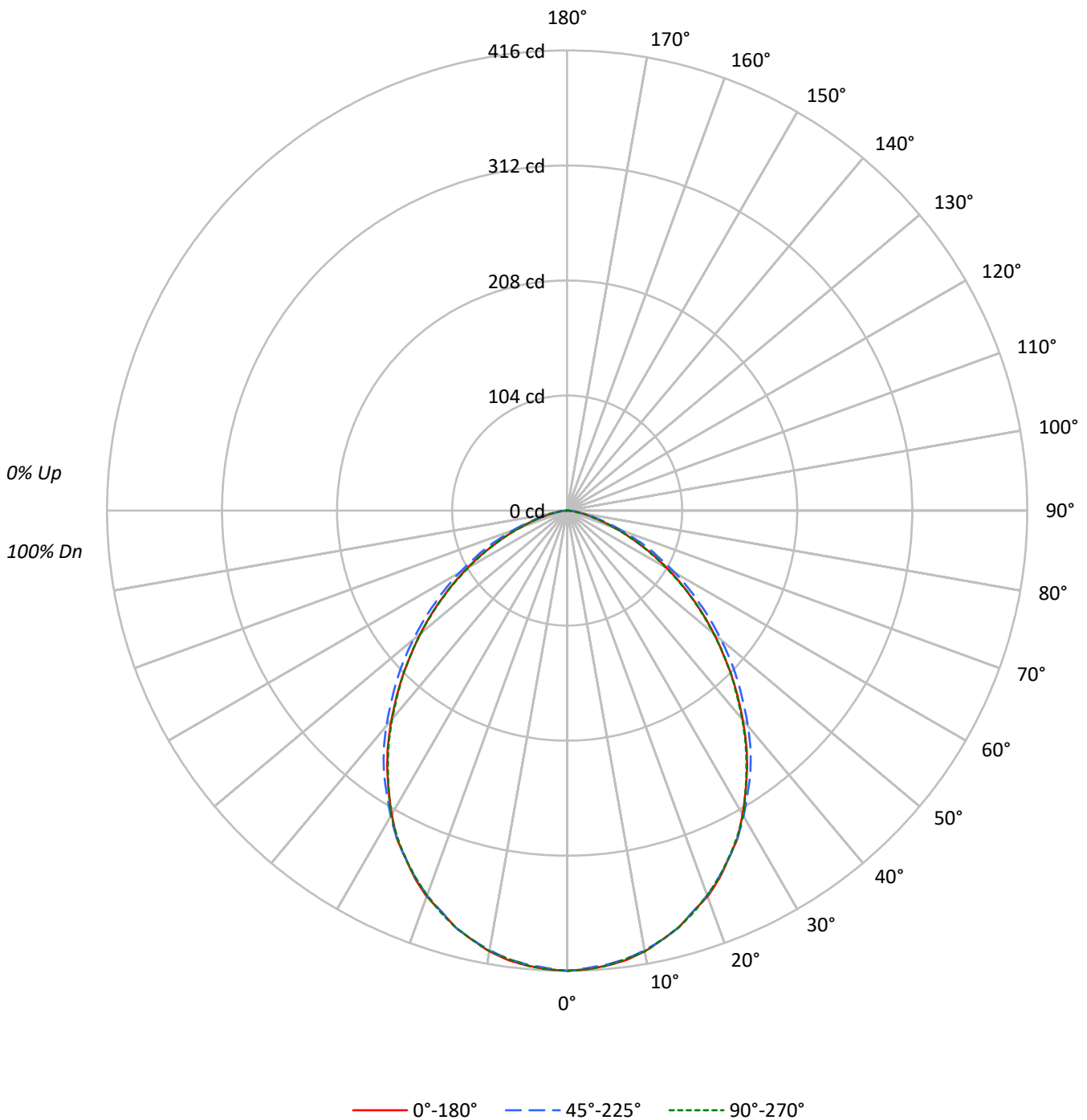
Lumens per Lamp: N/A
Luminaire Lumens: 890.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.24
Luminous Opening: Rectangular (W 0.21' x L: 0.21' x H: 0')
CIE Type: Direct

Input Watts (W): 9.64
Input Voltage (V): 120
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	94	88	83	99	93	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	35
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32
10	57	44	37	31	55	44	36	31	43	36	31	42	36	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	103193	103193	103193
5°	102816	102542	102816
10°	101889	101637	101889
15°	100132	100132	100132
20°	97966	97702	97702
25°	94734	94734	94734
30°	90778	91380	91093
35°	85861	87466	85558
40°	79997	82360	79673
45°	73512	76458	73512
50°	66786	70027	66786
55°	59538	63127	59538
60°	51733	55850	51187
65°	42838	47709	42838
70°	33282	37778	33282
75°	23955	27021	23955
80°	16424	17852	17852
85°	11951	11951	11951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.1	4.4
10°-20°	109.8	12.3
20°-30°	159.5	17.9
30°-40°	178.4	20.0
40°-50°	164.7	18.5
50°-60°	127.1	14.3
60°-70°	76.7	8.6
70°-80°	29.4	3.3
80°-90°	5.3	0.6
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°	308.4	34.7
0°-40°	486.8	54.7
0°-60°	778.6	87.5
0°-90°	890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	890.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	416	416	416	416	416	
5°	413	414	412	413	413	39
15°	390	391	390	391	390	110
25°	346	347	346	347	346	159
35°	284	286	289	286	283	177
45°	210	213	218	214	210	162
55°	138	142	146	143	138	123
65°	73	77	81	77	73	73
75°	25	26	28	26	25	28
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	416.1	416.1	416.1	416.1	416.1
2.5°	415.0	416.1	414.0	415.0	415.0
5°	413.0	414.0	411.9	413.0	413.0
7.5°	409.8	409.8	408.8	409.8	408.8
10°	404.6	404.6	403.6	404.6	404.6
12.5°	397.3	398.4	397.3	398.4	397.3
15°	390.0	391.1	390.0	391.1	390.0
17.5°	379.6	380.6	379.6	380.6	380.6
20°	371.2	371.2	370.2	371.2	370.2
22.5°	359.8	358.7	358.7	359.8	358.7
25°	346.2	347.3	346.2	347.3	346.2
27.5°	333.7	333.7	333.7	333.7	332.7
30°	317.0	319.1	319.1	318.1	318.1
32.5°	300.3	303.5	303.5	303.5	300.3
35°	283.6	285.7	288.9	285.7	282.6
37.5°	265.9	268.0	272.2	268.0	264.9
40°	247.1	250.3	254.4	250.3	246.1
42.5°	228.4	231.5	235.7	232.5	227.3
45°	209.6	212.7	218.0	213.8	209.6
47.5°	190.8	195.0	200.2	195.0	190.8
50°	173.1	177.3	181.5	177.3	173.1
52.5°	155.4	159.6	163.7	159.6	154.3
55°	137.7	141.8	146.0	142.9	137.7
57.5°	121.0	125.1	129.3	125.1	119.9
60°	104.3	108.5	112.6	108.5	103.2
62.5°	88.6	92.8	95.9	92.8	87.6
65°	73.0	77.2	81.3	77.2	73.0
67.5°	58.4	62.6	65.7	62.6	58.4
70°	45.9	49.0	52.1	49.0	45.9
72.5°	34.4	36.5	39.6	36.5	34.4
75°	25.0	26.1	28.2	26.1	25.0
77.5°	17.7	17.7	18.8	17.7	17.7
80°	11.5	12.5	12.5	12.5	12.5
82.5°	7.3	7.3	7.3	7.3	7.3
85°	4.2	4.2	4.2	4.2	4.2
87.5°	2.1	2.1	1.0	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)