

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: P85078

Luminaire Tested: **EL405840-TLS408WHWB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P85078
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21157-R2)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TLS408WHWB
Description: ***THIS IS A REVISION OF P21157 TO UPDATE CATALOG NUMBER***HALO 4 INCH RECESSED FIXTURE WITH 4 INCH WHITE SQUARE TRIM,WHITE BAFFLE, SOLITE LENS AND UPPER TRIM REFLECTOR. ---ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING A 500 WATT, NIST TRACEABLE, OMNI-DIRECTIONAL LAB LUMEN STANDARD IN THE GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET----
Light Source: (1) SMT LED 4000K
(1) 221 14 WATTS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 625 (1 lamp)
Luminaire Lumens: 625.3 lumens
Efficiency: 100.1%
Efficacy: 45.6 lumens/watt
Spacing Criteria (0/90/45): 0.61 / 0.61 / 0.67
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')
CIE Type: Direct

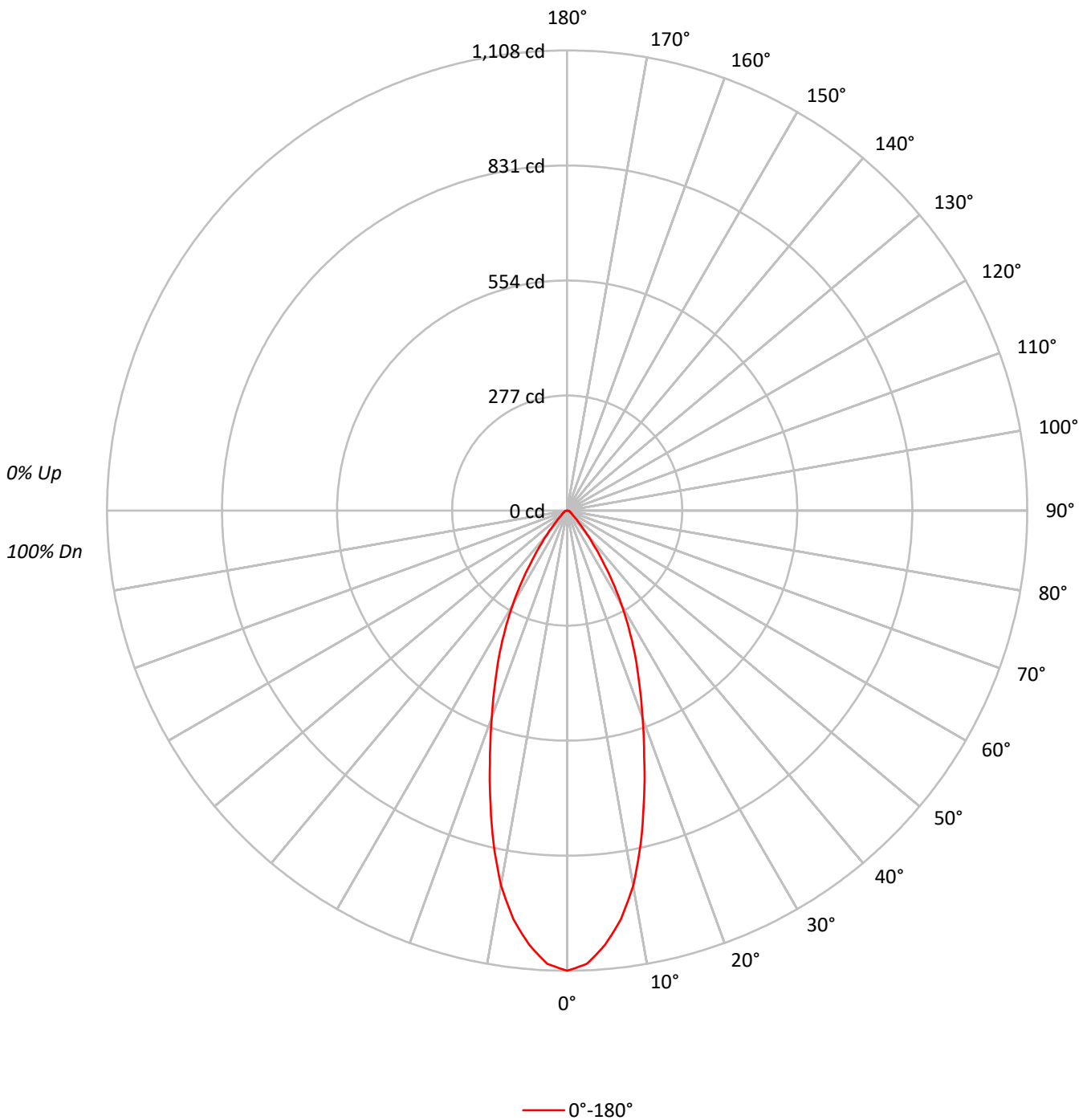
Input Watts (W): 13.7
Input Voltage (V): NR
Input Current (A_{in}): 0.12016
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	111	108	106	111	109	106	104	105	103	101		101	99	98		97	96	95	94
2	108	103	99	96	106	102	98	95	98	95	93		95	93	91		93	91	89	87
3	103	97	92	88	101	95	91	87	93	89	86		90	87	84		88	85	83	82
4	98	91	85	81	96	90	85	81	87	83	80		85	82	79		84	80	78	76
5	93	85	80	76	92	84	79	75	83	78	75		81	77	74		79	76	73	72
6	89	81	75	71	88	80	74	70	78	74	70		77	73	70		76	72	69	68
7	85	76	71	66	84	76	70	66	74	70	66		73	69	66		72	68	65	64
8	81	72	67	63	80	72	66	63	71	66	62		70	65	62		69	65	62	61
9	78	69	63	59	77	68	63	59	67	63	59		67	62	59		66	62	59	57
10	75	66	60	56	74	65	60	56	64	59	56		64	59	56		63	59	56	55

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	136655
5°	125756
10°	107547
15°	82838
20°	61112
25°	44868
30°	30562
35°	17773
40°	9121
45°	4721
50°	2611
55°	1837
60°	1470
65°	1235
70°	1161
75°	865
80°	494
85°	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	96.1	15.4	15.4
10°-20°	198.1	31.7	31.7
20°-30°	177.2	28.3	28.4
30°-40°	96.3	15.4	15.4
40°-50°	31.2	5.0	5.0
50°-60°	12.6	2.0	2.0
60°-70°	8.0	1.3	1.3
70°-80°	4.6	0.7	0.7
80°-90°	1.2	0.2	0.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	471.3	75.4	75.4
0°-40°	567.7	90.8	90.8
0°-60°	611.4	97.8	97.8
0°-90°	625.3	100.0	100.1
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	625.3	100.0	100.1

CANDELA DISTRIBUTION:

	0°	Flux
0°	1108	
5°	1050	96
15°	715	198
25°	388	177
35°	150	96
45°	37	31
55°	13	13
65°	8	8
75°	4	5
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	1107.9
2.5°	1092.5
5°	1049.6
7.5°	992.4
10°	916.5
12.5°	819.7
15°	715.1
17.5°	617.2
20°	530.3
22.5°	454.4
25°	388.4
27.5°	323.5
30°	261.9
32.5°	203.5
35°	149.6
37.5°	106.7
40°	74.8
42.5°	52.8
45°	37.4
47.5°	26.4
50°	19.8
52.5°	16.5
55°	13.2
57.5°	12.1
60°	9.9
62.5°	8.8
65°	7.7
67.5°	7.7
70°	6.6
72.5°	5.5
75°	4.4
77.5°	3.3
80°	2.2
82.5°	2.2
85°	1.1
87.5°	0.0
90°	0.0

(END OF REPORT)