

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: P85080

Luminaire Tested: **EL405835-TLS408WHWB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P85080  
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: EL405835-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 3500K  
(1) 221 14 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

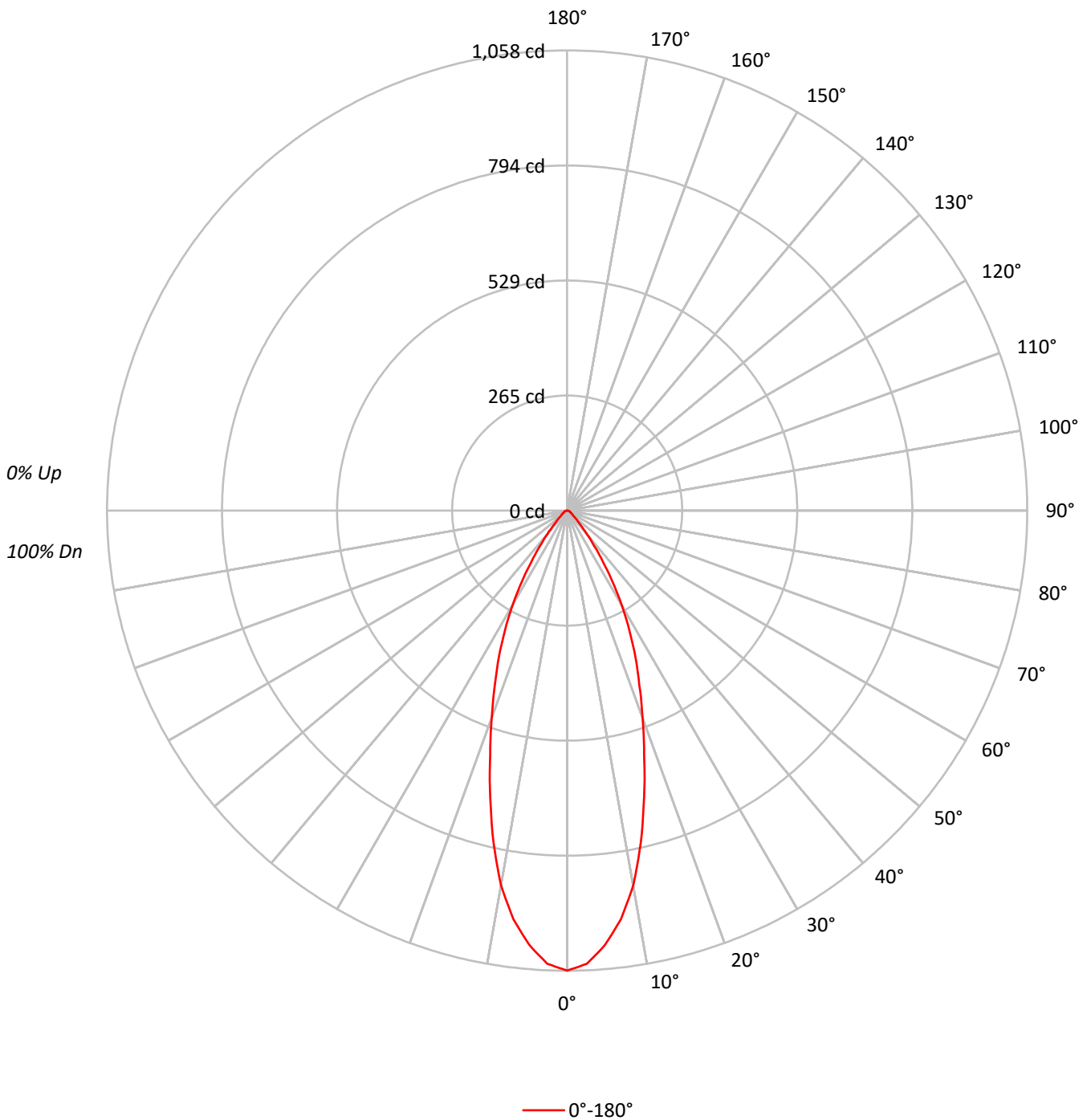
Lumens per Lamp: 597 (1 lamp)  
Luminaire Lumens: 597.0 lumens  
Efficiency: 100.0%  
Efficacy: 43.6 lumens/watt  
Spacing Criteria (0/90/45): 0.61 / 0.61 / 0.67  
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 13.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	93
2	108	103	99	96	106	101	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	89	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	69		76	72	69	68
7	85	76	70	66	84	76	70	66	74	69	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	60
9	78	69	63	59	77	68	63	59	67	62	59		66	62	59		66	62	59	57
10	75	65	60	56	74	65	60	56	64	59	56		64	59	56		63	59	56	55

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	130450
5°	120040
10°	102653
15°	79073
20°	58335
25°	42824
30°	29162
35°	16965
40°	8706
45°	4506
50°	2492
55°	1753
60°	1410
65°	1187
70°	1109
75°	825
80°	471
85°	290



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	91.7	15.4	15.4
10°-20°	189.1	31.7	31.7
20°-30°	169.1	28.3	28.3
30°-40°	92.0	15.4	15.4
40°-50°	29.7	5.0	5.0
50°-60°	12.1	2.0	2.0
60°-70°	7.7	1.3	1.3
70°-80°	4.5	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°	449.9	75.4	75.4
0°-40°	541.9	90.8	90.8
0°-60°	583.7	97.8	97.8
0°-90°	597.0	100.0	100.0
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°	597.0	100.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1058	
5°	1002	92
15°	683	189
25°	371	169
35°	143	92
45°	36	30
55°	13	12
65°	7	8
75°	4	4
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1057.6
2.5°	1042.9
5°	1001.9
7.5°	947.3
10°	874.8
12.5°	782.4
15°	682.6
17.5°	589.2
20°	506.2
22.5°	433.7
25°	370.7
27.5°	308.8
30°	249.9
32.5°	194.3
35°	142.8
37.5°	101.9
40°	71.4
42.5°	50.4
45°	35.7
47.5°	25.2
50°	18.9
52.5°	15.8
55°	12.6
57.5°	11.6
60°	9.5
62.5°	8.4
65°	7.4
67.5°	7.4
70°	6.3
72.5°	5.3
75°	4.2
77.5°	3.2
80°	2.1
82.5°	2.1
85°	1.1
87.5°	0.0
90°	0.0

(END OF REPORT)