

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: P85079

Luminaire Tested: **EL405827-TLS408WHWB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P85079  
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: EL405827-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 2700K  
(1) 221 14 WATTS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

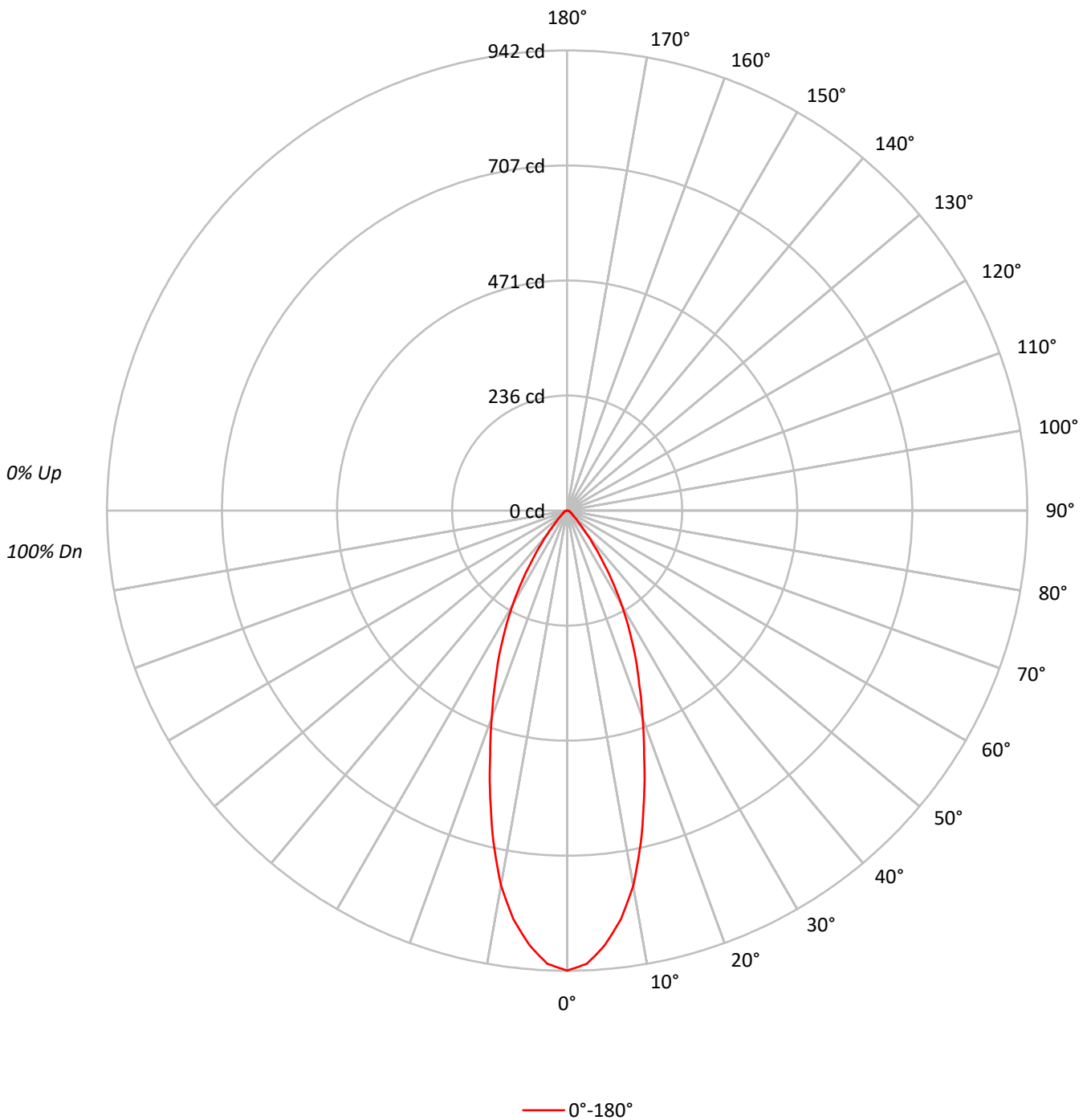
Lumens per Lamp: 532 (1 lamp)  
Luminaire Lumens: 531.5 lumens  
Efficiency: 99.9%  
Efficacy: 38.8 lumens/watt  
Spacing Criteria (0/90/45): 0.61 / 0.61 / 0.67  
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 13.7  
Input Voltage (V): NR  
Input Current (Ain): 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	113	111	108	106	111	108	106	104	104	103	101		101	99	98		97	96	95	93
2	108	103	99	96	106	101	98	95	98	95	93		95	93	91		92	91	89	87
3	103	96	92	88	101	95	91	87	92	89	86		90	87	84		88	85	83	81
4	98	91	85	81	96	89	84	81	87	83	80		85	82	79		83	80	78	76
5	93	85	80	75	92	84	79	75	83	78	74		81	77	74		79	76	73	72
6	89	80	75	71	88	80	74	70	78	73	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		63	59	56		63	59	56	55

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

	0°
0°	116155
5°	106897
10°	91412
15°	70420
20°	51950
25°	38133
30°	25976
35°	15112
40°	7755
45°	4014
50°	2215
55°	1558
60°	1247
65°	1043
70°	985
75°	727
80°	426
85°	237



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	81.6	15.4	15.3
10°-20°	168.4	31.7	31.6
20°-30°	150.6	28.3	28.3
30°-40°	81.9	15.4	15.4
40°-50°	26.5	5.0	5.0
50°-60°	10.7	2.0	2.0
60°-70°	6.8	1.3	1.3
70°-80°	3.9	0.7	0.7
80°-90°	1.0	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°	400.6	75.4	75.3
0°-40°	482.5	90.8	90.7
0°-60°	519.7	97.8	97.7
0°-90°	531.5	100.0	99.9
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°	531.5	100.0	99.9

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	942	
5°	892	82
15°	608	168
25°	330	151
35°	127	82
45°	32	26
55°	11	11
65°	6	7
75°	4	4
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	941.7
2.5°	928.6
5°	892.2
7.5°	843.5
10°	779.0
12.5°	696.7
15°	607.9
17.5°	524.6
20°	450.8
22.5°	386.2
25°	330.1
27.5°	274.9
30°	222.6
32.5°	173.0
35°	127.2
37.5°	90.7
40°	63.6
42.5°	44.9
45°	31.8
47.5°	22.4
50°	16.8
52.5°	14.0
55°	11.2
57.5°	10.3
60°	8.4
62.5°	7.5
65°	6.5
67.5°	6.5
70°	5.6
72.5°	4.7
75°	3.7
77.5°	2.8
80°	1.9
82.5°	1.9
85°	0.9
87.5°	0.0
90°	0.0

(END OF REPORT)