

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: H26051

Luminaire Tested: **H2513**

Issue Date: 3/3/2020



Test Information

Test Method: LM-46-04
Report Number: H26051
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H2513
Description: HALO 8" DIA SURFACE MOUNT
SPECULAR REFLECTOR - LAMP CENTERS 3" APART
PLASTIC LINEAR LENS - LENS LINES ACROSS LAMPS
Light Source: (2) F13TT 13 WATTS 900 LUMENS EACH
TWIN TUBE COMPACT FLUORESCENT
Ballast/Driver: -

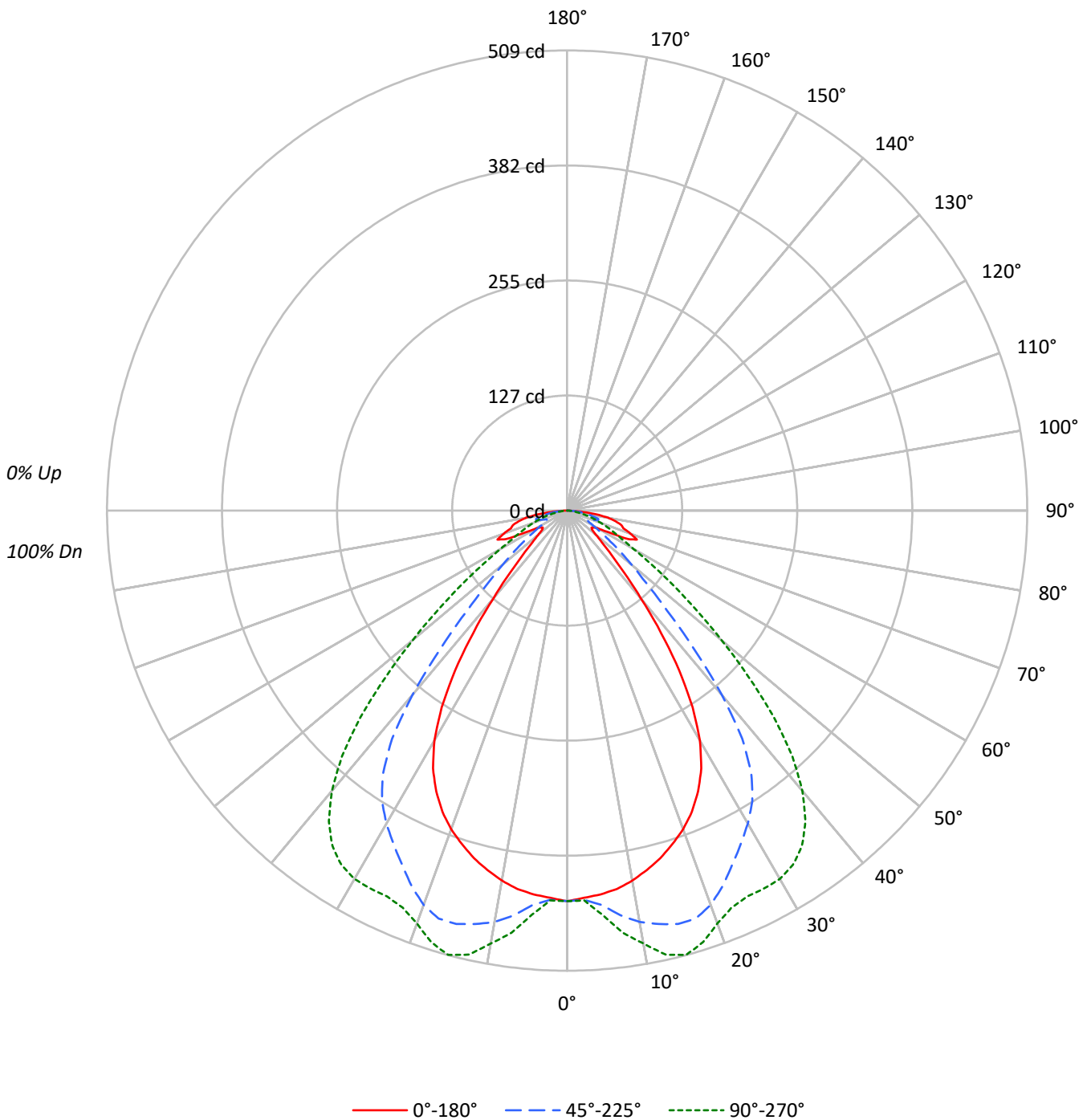
Summary

Lumens per Lamp: 900 (2 lamps)
Luminaire Lumens: 885.1 lumens
Efficiency: 49.2%
Efficacy: 26.0 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.54 / 1.23
Luminous Opening: (L: 0' x W: -0.67' x H: 0'
CIE Type: Direct

Input Watts (W): 34
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					
RC	80					70					50					30					
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	59	59	59	59	57	57	57	57	55	55	55	52	52	52	50	50	50	49			
1	54	52	51	49	53	51	50	48	49	48	47	47	46	45	46	45	44	43			
2	50	47	44	42	49	46	44	41	44	42	40	43	41	40	41	40	39	38			
3	47	42	39	36	46	42	39	36	40	38	35	39	37	35	38	36	34	33			
4	43	38	35	32	42	38	34	32	37	34	31	36	33	31	35	32	31	30			
5	41	35	31	28	40	35	31	28	34	30	28	33	30	28	32	29	27	27			
6	38	32	28	25	37	32	28	25	31	28	25	30	27	25	29	27	25	24			
7	35	29	26	23	35	29	26	23	28	25	23	28	25	23	27	25	23	22			
8	33	27	23	21	32	27	23	21	26	23	21	26	23	21	25	23	21	20			
9	31	25	22	19	31	25	21	19	24	21	19	24	21	19	23	21	19	18			
10	29	23	20	18	29	23	20	18	23	20	17	22	19	17	22	19	17	17			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	42.5	4.8	2.4
10°-20°	130.2	14.7	7.2
20°-30°	194.4	22.0	10.8
30°-40°	212.0	24.0	11.8
40°-50°	140.4	15.9	7.8
50°-60°	67.9	7.7	3.8
60°-70°	46.6	5.3	2.6
70°-80°	39.0	4.4	2.2
80°-90°	12.2	1.4	0.7
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°	367.1	41.5	20.4
0°-40°	579.1	65.4	32.2
0°-60°	787.4	89.0	43.7
0°-90°	885.1	100.0	49.2
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°	885.1	100.0	49.2

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	432	432	432	432	432	
5°	426	430	438	446	449	40
15°	398	431	473	500	509	112
25°	343	392	432	457	471	156
35°	216	273	355	421	453	132
45°	69	90	156	271	323	57
55°	33	36	56	112	141	32
65°	75	56	24	38	57	67
75°	62	59	36	13	24	64
85°	18	16	10	4	5	21
90°	0	0	0	0	0	1
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	432.0	432.0	432.0	432.0	432.0
2.5°	428.7	429.9	431.0	431.2	431.6
5°	426.1	430.3	437.9	445.5	448.8
7.5°	422.1	431.9	451.5	464.5	470.9
10°	415.5	433.7	462.0	479.0	486.4
12.5°	407.2	433.3	468.5	493.7	503.0
15°	398.1	430.6	473.3	500.3	508.8
17.5°	386.9	426.5	473.2	494.8	500.4
20°	375.0	419.3	464.1	480.7	485.9
22.5°	360.6	408.2	449.5	465.9	475.3
25°	342.6	392.2	432.1	456.6	471.0
27.5°	321.3	371.4	415.8	451.1	471.4
30°	293.5	344.4	399.6	445.7	470.5
32.5°	258.2	311.7	381.2	436.9	464.8
35°	216.2	273.4	355.1	421.4	452.8
37.5°	170.8	224.9	318.0	398.3	433.0
40°	127.3	171.8	266.5	363.8	404.7
42.5°	93.1	123.8	208.1	319.9	368.6
45°	68.8	90.4	156.3	271.0	323.2
47.5°	51.7	69.3	118.0	224.2	272.1
50°	41.9	52.7	92.1	182.4	222.9
52.5°	34.9	43.0	72.6	143.7	178.5
55°	32.9	35.6	55.6	112.2	141.4
57.5°	34.8	33.5	42.8	87.1	109.2
60°	38.6	35.9	33.0	67.0	85.0
62.5°	52.4	40.4	27.0	50.7	68.2
65°	74.9	56.0	24.3	38.5	57.3
67.5°	83.6	75.4	25.1	29.5	48.3
70°	74.6	77.6	29.4	22.1	39.4
72.5°	65.2	67.0	35.5	16.8	32.3
75°	62.1	58.7	35.8	12.6	24.5
77.5°	55.1	52.5	28.8	10.0	18.0
80°	46.2	42.7	22.3	8.1	12.3
82.5°	33.1	30.7	16.5	6.4	7.9
85°	18.1	16.2	9.8	4.0	4.6
87.5°	4.7	4.3	3.2	1.6	1.9
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)