

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: H22073

Luminaire Tested: **H274-425P**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: H22073
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H274-425P
Description: HALO 6" PL RECESSED DOWNLIGHT
SPECULAR REFLECTOR WITH WALLWASH SCOOP
LOW SOCKET SETTING
Light Source: 13W/QT4 13 WATTS 860 LUMENS
10mm QUAD TUBE COMPACT FLUORESCENT
G24 D-2 BASE
Ballast/Driver: -

Summary

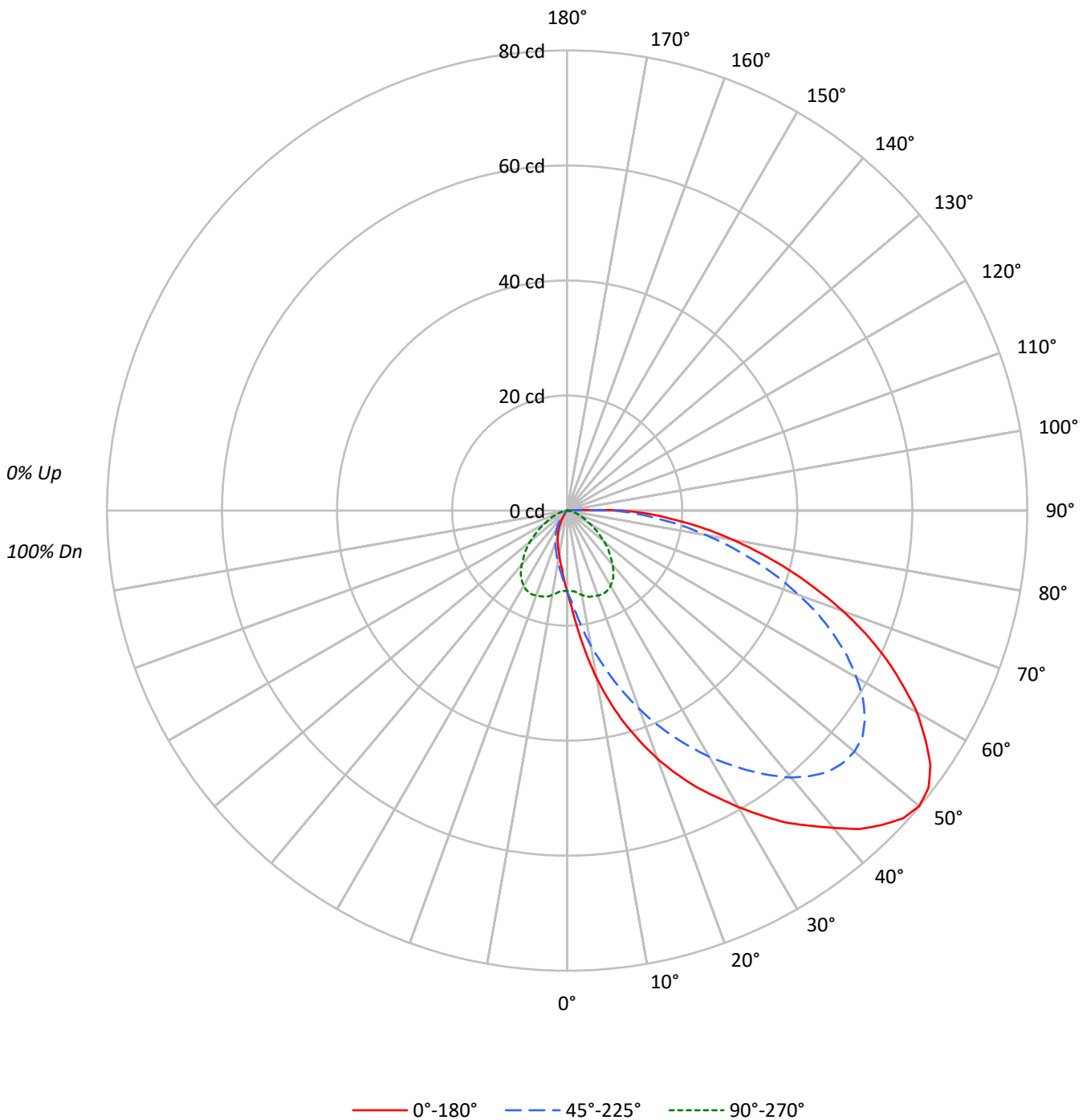
Lumens per Lamp: 860 (1 lamp)
Luminaire Lumens: 126.9 lumens
Efficiency: 14.8%
Efficacy: 7.0 lumens/watt
Spacing Criteria (0/90/45): 2.91 / 1.48 / 2.49
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

Input Watts (W): 18
Input Voltage (V): NR
Input Current (A_{in}): 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	18	18	18	18	17	17	17	17	16	16	16	16	16	16	15	15	15	15
1	16	15	14	13	15	14	14	13	14	13	12	13	12	12	12	12	12	11
2	14	12	11	10	13	12	11	10	11	10	10	11	10	9	10	10	9	9
3	12	10	9	8	12	10	9	8	10	9	8	9	8	8	9	8	7	7
4	11	9	8	6	11	9	7	6	8	7	6	8	7	6	8	7	6	6
5	10	8	6	5	10	8	6	5	7	6	5	7	6	5	7	6	5	5
6	9	7	6	4	9	7	5	4	7	5	4	6	5	4	6	5	4	4
7	8	6	5	4	8	6	5	4	6	5	4	6	5	4	5	4	4	3
8	8	6	4	3	8	6	4	3	5	4	3	5	4	3	5	4	3	3
9	7	5	4	3	7	5	4	3	5	4	3	5	4	3	4	3	3	2
10	7	5	3	3	7	5	3	3	4	3	2	4	3	2	4	3	2	2

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
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°	1.5	1.2	0.2
10°-20°	5.4	4.3	0.6
20°-30°	10.7	8.4	1.2
30°-40°	16.8	13.2	1.9
40°-50°	22.6	17.8	2.6
50°-60°	25.1	19.8	2.9
60°-70°	21.9	17.3	2.5
70°-80°	15.1	11.9	1.8
80°-90°	7.4	5.8	0.9
90°-100°	0.5	0.4	0.1
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°	17.5	13.8	2.0
0°-40°	34.3	27.0	4.0
0°-60°	82.0	64.6	9.5
0°-90°	126.4	99.6	14.7
90°-120°	0.5	0.4	0.1
90°-150°	0.5	0.4	0.1
90°-180°	0.0	0.0	0.0
0°-180°	126.9	100.0	14.8

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14	14	14	14	14	
5°	20	18	14	11	10	2
15°	38	30	16	7	6	11
25°	53	43	16	5	3	25
35°	66	55	14	2	1	42
45°	77	64	10	1	0	60
55°	77	63	6	0	0	68
65°	61	51	3	0	0	60
75°	40	34	1	0	0	42
85°	19	16	0	0	0	18
90°	9	8	0	0	0	5
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°	112.5°	135°	157.5°	180°
0°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
2.5°	16.6	16.3	15.6	14.8	14.0	13.2	12.5	12.2	12.1
5°	20.4	19.6	18.0	16.0	14.1	12.4	11.1	10.5	10.2
7.5°	24.9	23.5	20.7	17.5	14.5	11.9	10.1	9.2	9.0
10°	29.6	28.2	24.0	19.4	14.9	11.2	9.1	8.2	7.8
12.5°	33.9	31.9	26.8	21.1	15.3	10.6	8.2	7.3	7.0
15°	38.1	36.1	30.1	23.0	15.5	9.9	7.4	6.4	6.1
17.5°	42.0	39.8	33.4	25.0	15.6	9.1	6.6	5.8	5.5
20°	45.9	43.6	36.7	27.1	15.7	8.4	6.0	5.1	4.7
22.5°	49.5	47.0	40.0	29.1	15.8	7.6	5.3	4.4	4.1
25°	53.0	50.3	43.2	31.2	15.7	6.9	4.7	3.7	3.4
27.5°	56.1	53.5	46.3	33.4	15.5	6.2	4.2	3.2	2.8
30°	59.5	56.7	49.4	35.5	15.1	5.6	3.6	2.4	2.1
32.5°	62.8	59.7	52.3	37.6	14.6	5.1	3.0	1.7	1.3
35°	66.2	62.8	55.2	39.8	14.0	4.5	2.4	1.0	0.7
37.5°	69.0	65.8	58.0	41.7	13.2	3.9	1.7	0.6	0.6
40°	72.0	68.5	60.6	43.4	12.3	3.4	1.1	0.5	0.5
42.5°	75.1	70.8	62.6	44.7	11.3	2.8	0.6	0.5	0.5
45°	77.3	72.8	64.2	45.6	10.4	2.3	0.6	0.5	0.5
47.5°	79.2	74.1	65.0	46.1	9.4	1.8	0.6	0.5	0.5
50°	79.9	74.8	65.2	45.8	8.4	1.3	0.6	0.5	0.4
52.5°	79.2	74.2	64.7	45.1	7.3	0.9	0.5	0.5	0.4
55°	77.1	72.4	63.2	43.6	6.4	0.6	0.5	0.4	0.4
57.5°	73.8	69.8	61.0	41.5	5.4	0.5	0.4	0.4	0.3
60°	70.3	66.3	58.1	39.1	4.5	0.5	0.4	0.3	0.3
62.5°	65.8	62.5	54.9	36.4	3.8	0.4	0.3	0.2	0.2
65°	61.3	58.0	51.2	33.6	3.2	0.4	0.2	0.2	0.1
67.5°	56.3	53.3	47.3	30.7	2.7	0.3	0.2	0.1	0.0
70°	51.0	48.2	42.8	27.7	2.1	0.2	0.1	0.0	0.0
72.5°	45.4	43.1	38.4	24.6	1.7	0.2	0.1	0.0	0.1
75°	40.0	37.7	33.7	21.4	1.2	0.1	0.1	0.1	0.1
77.5°	34.5	32.5	29.1	18.4	0.9	0.1	0.1	0.1	0.1
80°	29.2	27.6	24.5	15.3	0.6	0.1	0.1	0.1	0.1
82.5°	24.2	22.6	20.1	12.4	0.3	0.1	0.1	0.1	0.1
85°	19.0	17.7	15.7	9.7	0.3	0.1	0.1	0.1	0.1
87.5°	14.5	13.4	11.9	7.2	0.2	0.1	0.1	0.1	0.1
90°	9.4	9.1	8.2	5.1	0.2	0.1	0.1	0.1	0.1
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	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°	135°	157.5°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)