

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: H22029

Luminaire Tested: **H47T-496**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: H22029
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H47T-496
Description: HALO 6" RECESSED DOWNLIGHT
STANDARD SPECULAR REFLECTOR W/BAFFLE
SLOPE CEILING UNIT LOW SOCKET SETTING
Light Source: 100A19 100 WATTS 1750 LUMENS
A19 INSIDE FROSTED
Ballast/Driver: -

Summary

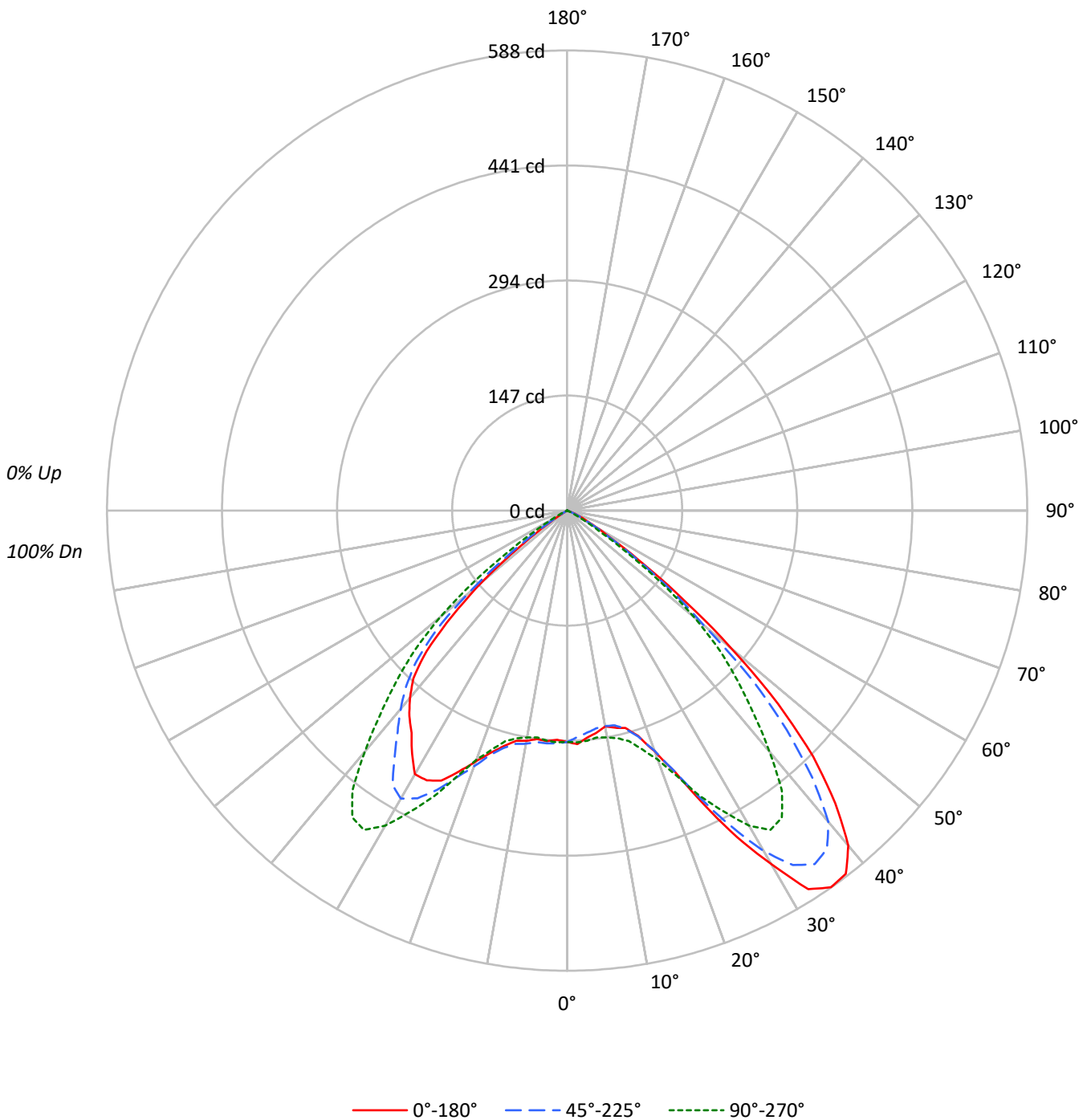
Lumens per Lamp: 1750 (1 lamp)
Luminaire Lumens: 935.0 lumens
Efficiency: 53.4%
Efficacy: 9.3 lumens/watt
Spacing Criteria (0/90/45): 1.88 / 1.81 / 1.59
Luminous Opening: (L: 0 ' x W: -0.47 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 100
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	64	64	64	64	62	62	62	62	59	59	59	57	57	57	55	55	55	53
1	60	58	56	55	58	57	55	54	54	53	52	52	51	51	51	50	49	48
2	56	52	49	47	54	51	49	47	49	47	46	48	46	45	46	45	44	43
3	52	47	44	41	50	46	43	40	45	42	40	43	41	39	42	40	38	37
4	48	42	39	36	47	42	38	35	41	37	35	39	37	34	38	36	34	33
5	44	38	34	31	43	38	34	31	37	33	31	36	33	30	35	32	30	29
6	41	35	31	28	40	34	30	27	33	30	27	32	29	27	32	29	27	26
7	38	32	27	24	37	31	27	24	30	27	24	30	26	24	29	26	24	23
8	35	29	25	22	35	28	24	22	28	24	22	27	24	21	26	24	21	20
9	33	26	22	19	32	26	22	19	25	22	19	25	22	19	24	21	19	18
10	31	24	20	18	30	24	20	18	23	20	17	23	20	17	22	19	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
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°	27.9	3.0	1.6
10°-20°	87.5	9.4	5.0
20°-30°	186.7	20.0	10.7
30°-40°	289.0	30.9	16.5
40°-50°	250.0	26.7	14.3
50°-60°	83.4	8.9	4.8
60°-70°	8.9	1.0	0.5
70°-80°	0.9	0.1	0.0
80°-90°	0.4	0.0	0.0
90°-100°	0.2	0.0	0.0
100°-110°	0.1	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°	302.2	32.3	17.3
0°-40°	591.2	63.2	33.8
0°-60°	924.5	98.9	52.8
0°-90°	934.6	100.0	53.4
90°-120°	0.4	0.0	0.0
90°-150°	0.4	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	935.0	100.0	53.4

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	291	285	295	299	296	27
15°	287	289	305	314	311	84
25°	415	408	403	394	381	196
35°	588	552	478	384	347	359
45°	444	397	308	273	254	333
55°	118	109	91	48	31	118
65°	18	14	5	1	0	20
75°	2	1	0	0	0	2
85°	1	0	0	0	0	1
90°	1	0	0	0	0	0
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°	295.7	295.7	295.7	295.7	295.7	295.7	295.7	295.7	295.7
2.5°	298.6	298.7	289.8	295.8	296.3	292.5	297.7	294.0	293.0
5°	291.3	294.6	285.1	293.1	295.3	292.2	298.7	294.0	295.8
7.5°	286.3	288.2	280.9	289.9	292.3	291.7	298.4	295.2	294.5
10°	279.9	284.3	279.6	288.7	294.3	292.7	302.5	298.2	298.6
12.5°	284.3	285.7	281.0	292.0	298.0	298.7	305.5	301.7	301.4
15°	287.4	293.1	288.8	300.6	304.9	304.7	314.0	310.3	311.3
17.5°	302.0	305.2	302.9	312.9	320.0	319.8	327.4	324.7	324.2
20°	327.5	330.7	326.3	337.3	338.5	339.9	347.7	341.3	340.9
22.5°	362.0	370.5	361.6	369.2	367.3	365.8	368.7	361.6	360.7
25°	414.7	417.0	407.6	407.7	402.8	392.0	393.8	382.2	380.8
27.5°	470.6	469.4	455.8	449.3	433.4	421.6	414.4	395.0	388.6
30°	521.2	522.8	502.3	486.2	464.7	440.9	425.1	395.9	389.0
32.5°	573.6	563.9	537.0	518.4	483.7	447.1	415.2	379.4	368.7
35°	587.6	583.3	551.5	528.7	478.5	425.8	384.3	350.2	346.8
37.5°	585.0	579.3	545.3	514.3	450.7	388.7	355.9	333.6	331.2
40°	558.9	553.3	519.1	474.4	402.3	350.1	330.9	314.3	312.2
42.5°	507.1	504.4	464.2	415.1	353.7	317.6	304.3	290.5	290.8
45°	444.4	442.9	397.0	353.4	308.5	282.4	272.9	258.6	254.4
47.5°	365.8	364.2	322.4	286.7	264.2	241.5	228.3	203.8	199.0
50°	273.6	272.8	227.2	226.0	211.4	192.1	167.1	146.8	141.9
52.5°	188.6	188.3	166.7	163.5	151.9	122.9	105.0	84.3	79.4
55°	117.9	118.1	109.2	105.9	91.3	66.8	48.3	34.3	30.6
57.5°	70.2	71.4	66.5	62.4	48.6	32.5	18.1	10.0	7.7
60°	43.5	44.5	39.5	35.2	23.9	12.1	4.9	1.0	0.8
62.5°	28.2	27.5	23.9	19.1	11.4	4.3	0.8	0.7	0.6
65°	17.9	17.5	14.4	10.4	5.0	1.0	0.6	0.4	0.4
67.5°	11.3	10.7	7.8	4.8	1.6	0.7	0.4	0.2	0.2
70°	5.1	4.8	3.1	1.7	1.0	0.5	0.2	0.1	0.0
72.5°	2.1	2.0	1.6	1.1	0.8	0.3	0.1	0.0	0.0
75°	1.7	1.6	1.2	1.0	0.5	0.2	0.1	0.1	0.1
77.5°	1.4	1.3	1.0	0.8	0.4	0.2	0.1	0.1	0.1
80°	1.2	1.1	0.8	0.6	0.2	0.2	0.1	0.1	0.1
82.5°	1.0	0.9	0.6	0.4	0.2	0.2	0.1	0.1	0.1
85°	0.8	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.1
87.5°	0.7	0.6	0.4	0.2	0.2	0.1	0.1	0.2	0.1
90°	0.6	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1
92.5°	0.5	0.4	0.2	0.1	0.2	0.2	0.1	0.1	0.1
95°	0.4	0.4	0.2	0.1	0.2	0.2	0.1	0.1	0.1
97.5°	0.4	0.3	0.1	0.1	0.2	0.2	0.1	0.1	0.1
100°	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1
102.5°	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1
105°	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
107.5°	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
110°	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1



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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)