

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: H24040

Luminaire Tested: **H1-ICF-114**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: H24040
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H1-ICF-114
Description: HALO 8" SQ. RECESSED DOWNLIGHT
WHITE REFLECTOR - 4 CELL SPECULAR LOUVER
Light Source: (2) F13QT/4P 13 WATTS 900 LUMENS EACH
13mm QUAD TUBE COMPACT FLUORESCENT - 4 PIN BASE
Ballast/Driver: -

Summary

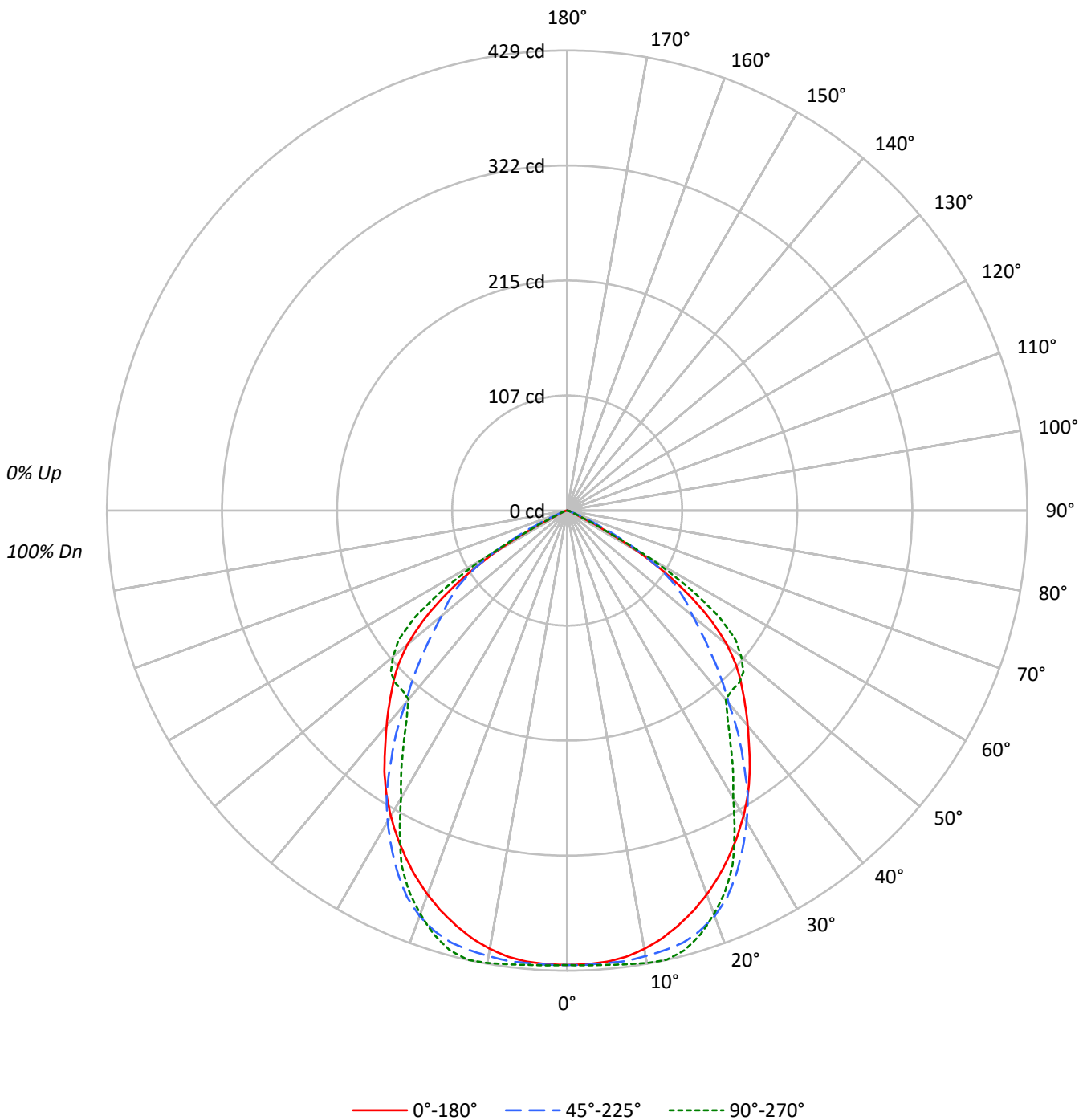
Lumens per Lamp: 900 (2 lamps)
Luminaire Lumens: 824.3 lumens
Efficiency: 45.8%
Efficacy: 41.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.12 / 1.18
Luminous Opening: Rectangular (W 0.48' x L: 0.48' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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



TEST NUMBER: H24040
CATALOG NUMBER: H1-ICF-114

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	55	55	55	55	53	53	53	53	51	51	51	49	49	49	47	47	47	46
1	51	49	48	47	50	48	47	46	47	46	45	45	44	43	43	43	42	41
2	48	45	42	40	46	44	42	40	42	40	39	41	39	38	39	38	37	36
3	44	40	37	35	43	39	37	34	38	36	34	37	35	33	36	34	33	32
4	41	36	33	30	40	36	33	30	35	32	30	34	31	29	33	31	29	28
5	38	33	29	27	37	32	29	27	31	29	26	31	28	26	30	28	26	25
6	35	30	26	24	34	30	26	24	29	26	24	28	25	23	27	25	23	22
7	33	27	24	21	32	27	24	21	26	23	21	26	23	21	25	23	21	20
8	31	25	22	19	30	25	22	19	24	21	19	24	21	19	23	21	19	18
9	29	23	20	18	28	23	20	17	22	19	17	22	19	17	22	19	17	16
10	27	22	18	16	27	21	18	16	21	18	16	20	18	16	20	18	16	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19795	19795	19795
5°	19805	19856	19936
10°	19682	20005	20318
15°	19366	20178	20512
20°	18927	19996	19902
25°	18377	19248	18815
30°	17737	18061	16707
35°	16933	16346	15148
40°	15966	14283	14027
45°	15189	12619	14991
50°	14136	11098	15387
55°	11566	10198	14083
60°	7111	7587	8568
65°	1293	3250	1669
70°	628	765	738
75°	451	433	505
80°	350	350	404
85°	268	268	322



TEST NUMBER: H24040
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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	40.4	4.9	2.2
10°-20°	116.5	14.1	6.5
20°-30°	168.4	20.4	9.4
30°-40°	179.1	21.7	10.0
40°-50°	164.4	19.9	9.1
50°-60°	123.4	15.0	6.9
60°-70°	28.5	3.5	1.6
70°-80°	2.9	0.4	0.2
80°-90°	0.6	0.1	0.0
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°	325.3	39.5	18.1
0°-40°	504.4	61.2	28.0
0°-60°	792.2	96.1	44.0
0°-90°	824.3	100.0	45.8
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°	824.3	100.0	45.8

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	422	422	423	424	425	40
15°	400	405	417	423	424	113
25°	356	369	373	370	365	164
35°	297	314	287	267	266	185
45°	230	228	191	205	227	177
55°	142	131	125	157	173	124
65°	12	16	29	19	15	24
75°	2	2	2	3	3	3
85°	0	0	0	1	1	1
90°	0	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



TEST NUMBER: H24040
 CATALOG NUMBER: H1-ICF-114

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	423.7	423.7	423.7	423.7	423.7
2.5°	423.3	423.1	423.8	423.6	424.5
5°	422.3	422.3	423.4	424.3	425.1
7.5°	419.6	420.6	423.5	425.1	426.7
10°	414.9	416.4	421.7	426.5	428.3
12.5°	408.6	411.3	419.9	427.0	428.9
15°	400.4	405.0	417.2	423.4	424.1
17.5°	391.3	397.4	411.0	415.4	414.1
20°	380.7	389.0	402.2	402.8	400.3
22.5°	369.1	378.8	390.0	386.3	384.6
25°	356.5	368.6	373.4	369.5	365.0
27.5°	343.0	357.2	354.5	345.8	338.0
30°	328.8	344.4	334.8	317.9	309.7
32.5°	313.6	330.6	313.3	289.2	287.7
35°	296.9	313.7	286.6	266.6	265.6
37.5°	278.8	293.4	261.9	243.8	245.6
40°	261.8	271.8	234.2	223.4	230.0
42.5°	245.6	249.4	212.7	208.9	227.3
45°	229.9	227.6	191.0	204.7	226.9
47.5°	213.9	207.0	170.5	200.1	222.9
50°	194.5	184.9	152.7	192.1	211.7
52.5°	170.1	159.1	139.9	176.3	197.9
55°	142.0	131.4	125.2	157.2	172.9
57.5°	108.8	101.9	105.9	127.2	135.7
60°	76.1	69.8	81.2	89.2	91.7
62.5°	38.3	39.5	54.8	48.5	38.7
65°	11.7	16.3	29.4	18.9	15.1
67.5°	6.6	6.9	13.2	8.0	7.7
70°	4.6	4.6	5.6	5.2	5.4
72.5°	3.4	3.3	3.3	3.7	3.8
75°	2.5	2.4	2.4	2.7	2.8
77.5°	1.8	1.8	1.8	2.0	2.1
80°	1.3	1.3	1.3	1.4	1.5
82.5°	0.9	0.8	0.9	1.0	1.0
85°	0.5	0.5	0.5	0.6	0.6
87.5°	0.2	0.2	0.2	0.3	0.3
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



TEST NUMBER: H24040
CATALOG NUMBER: H1-ICF-114

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)