

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: 267P123

Luminaire Tested: **H1EF-18DTT-113P**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 267P123
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H1EF-18DTT-113P
Description: HALO 9" RECESSED SQUARE DOWNLIGHT, 2 18CF WITH FRESNEL GLASS LENS AND WHITE SPLAY
Light Source: TWO - F18DBX/SPX30/4P - 1200 LUMENS -18 WATTS
Ballast/Driver: RCF-2S18-M1-LS-QS

Summary

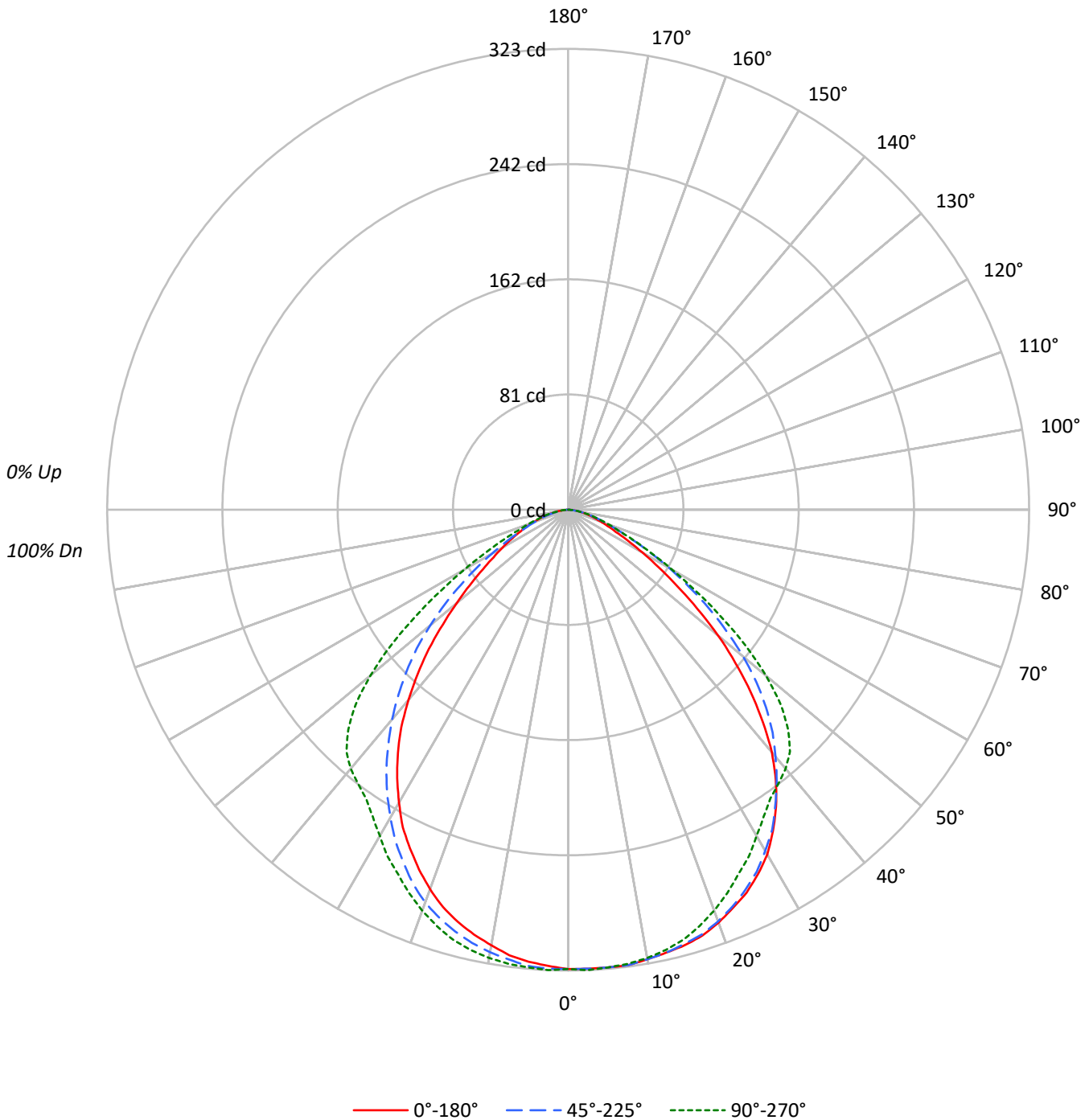
Lumens per Lamp: 1200 (2 lamps)
Luminaire Lumens: 699.6 lumens
Efficiency: 29.2%
Efficacy: 21.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.29
Luminous Opening: Rectangular (W 0.54' x L: 0.54' x H: 0')
CIE Type: Direct

Input Watts (W): 33
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				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	35	35	35	35	34	34	34	34	32	32	32	31	31	31	30	30	30	29
1	32	31	30	29	32	31	30	29	29	29	28	28	28	27	27	27	26	26
2	30	28	26	25	29	27	26	24	26	25	24	25	24	23	24	24	23	22
3	28	25	23	21	27	24	22	21	24	22	21	23	21	20	22	21	20	19
4	25	22	20	18	25	22	20	18	21	19	18	21	19	18	20	19	17	17
5	24	20	18	16	23	20	18	16	19	17	16	19	17	16	18	17	15	15
6	22	18	16	14	21	18	16	14	18	16	14	17	15	14	17	15	14	13
7	20	17	14	13	20	16	14	13	16	14	13	16	14	12	15	14	12	12
8	19	15	13	11	19	15	13	11	15	13	11	14	13	11	14	12	11	11
9	18	14	12	10	17	14	12	10	14	12	10	13	12	10	13	11	10	10
10	17	13	11	9	16	13	11	9	13	11	9	12	11	9	12	10	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	11813	11813	11813
5°	11858	11858	11711
10°	11921	11884	11548
15°	12002	11850	11356
20°	12025	11673	11049
25°	11982	11415	10605
30°	11819	11184	10040
35°	11376	11062	9315
40°	10632	11350	8333
45°	9391	11310	7160
50°	7819	10330	5822
55°	5948	8379	4669
60°	4402	6163	3889
65°	3212	4340	3299
70°	2574	3218	2789
75°	2126	2551	2268
80°	1901	1901	1901
85°	1263	1263	842



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	30.5	4.4	1.3
10°-20°	87.4	12.5	3.6
20°-30°	129.7	18.5	5.4
30°-40°	149.1	21.3	6.2
40°-50°	140.6	20.1	5.9
50°-60°	95.8	13.7	4.0
60°-70°	45.2	6.5	1.9
70°-80°	17.9	2.6	0.7
80°-90°	3.4	0.5	0.1
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°	247.6	35.4	10.3
0°-40°	396.7	56.7	16.5
0°-60°	633.1	90.5	26.4
0°-90°	699.6	100.0	29.2
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°	699.6	100.0	29.2

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	322	322	322	322	322	
5°	322	322	322	321	318	31
15°	316	315	312	306	299	89
25°	296	294	282	273	262	136
35°	254	253	247	222	208	158
45°	181	196	218	160	138	139
55°	93	120	131	92	73	85
65°	37	49	50	39	38	38
75°	15	17	18	15	16	16
85°	3	2	3	2	2	4
90°	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°	322	322	322	322	322	322	322	322	322
2.5°	322	321	322	322	323	323	322	320	320
5°	322	321	322	322	322	322	321	318	318
7.5°	322	321	322	322	321	321	318	315	315
10°	320	320	320	320	319	318	315	311	310
12.5°	318	318	318	317	316	314	311	306	305
15°	316	315	315	314	312	310	306	301	299
17.5°	313	312	312	309	306	304	300	294	292
20°	308	307	307	303	299	296	293	286	283
22.5°	302	302	301	295	291	288	284	277	273
25°	296	296	294	287	282	278	273	266	262
27.5°	288	288	286	279	274	268	262	255	251
30°	279	279	276	270	264	258	249	242	237
32.5°	267	268	266	261	255	246	236	227	223
35°	254	255	253	252	247	236	222	212	208
37.5°	239	240	240	244	242	226	207	195	192
40°	222	223	226	237	237	217	192	178	174
42.5°	202	204	212	228	230	207	176	160	156
45°	181	184	196	217	218	195	160	142	138
47.5°	159	162	179	201	202	178	144	124	119
50°	137	141	160	181	181	159	126	108	102
52.5°	114	120	140	159	157	138	109	92	87
55°	93	100	120	135	131	115	92	78	73
57.5°	75	81	100	110	106	94	76	65	62
60°	60	65	82	88	84	75	62	54	53
62.5°	47	51	64	69	65	59	49	45	45
65°	37	40	49	53	50	46	39	37	38
67.5°	30	31	38	40	38	35	31	31	32
70°	24	25	29	31	30	28	24	25	26
72.5°	19	20	23	24	23	22	19	20	21
75°	15	16	17	18	18	17	15	16	16
77.5°	12	12	13	13	13	12	11	12	12
80°	9	9	9	9	9	9	8	8	9
82.5°	6	6	5	6	6	6	5	5	5
85°	3	3	2	3	3	2	2	2	2
87.5°	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)