

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: P21274

Luminaire Tested: **ML706827-495PWW06-H750ICAT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P21274
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML706827-495PWW06-H750ICAT
Description: HALO 6 INCH LED DOWNLIGHT WITH 600 Lmn MODULE, DIFFUSE LENS AND WHITE REFLECTOR WITH PLASTIC SPECULAR KICKER---ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING A 500 WATT, NIST TRACEABLE, OMNI-DIRECTIONAL LAB LUMEN STANDARD IN THE GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET----

Light Source: (1)SMT LED 2700K
CL-L221-C14L2-B

Ballast/Driver: (1)ELECTRONIC DRIVER
RLD011

Summary

Lumens per Lamp: 598 (1 lamp)
Luminaire Lumens: 598.5 lumens
Efficiency: 100.1%
Efficacy: 42.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.29
Luminous Opening: Circular (Dia: 0.48' x H: 0')
CIE Type: Direct

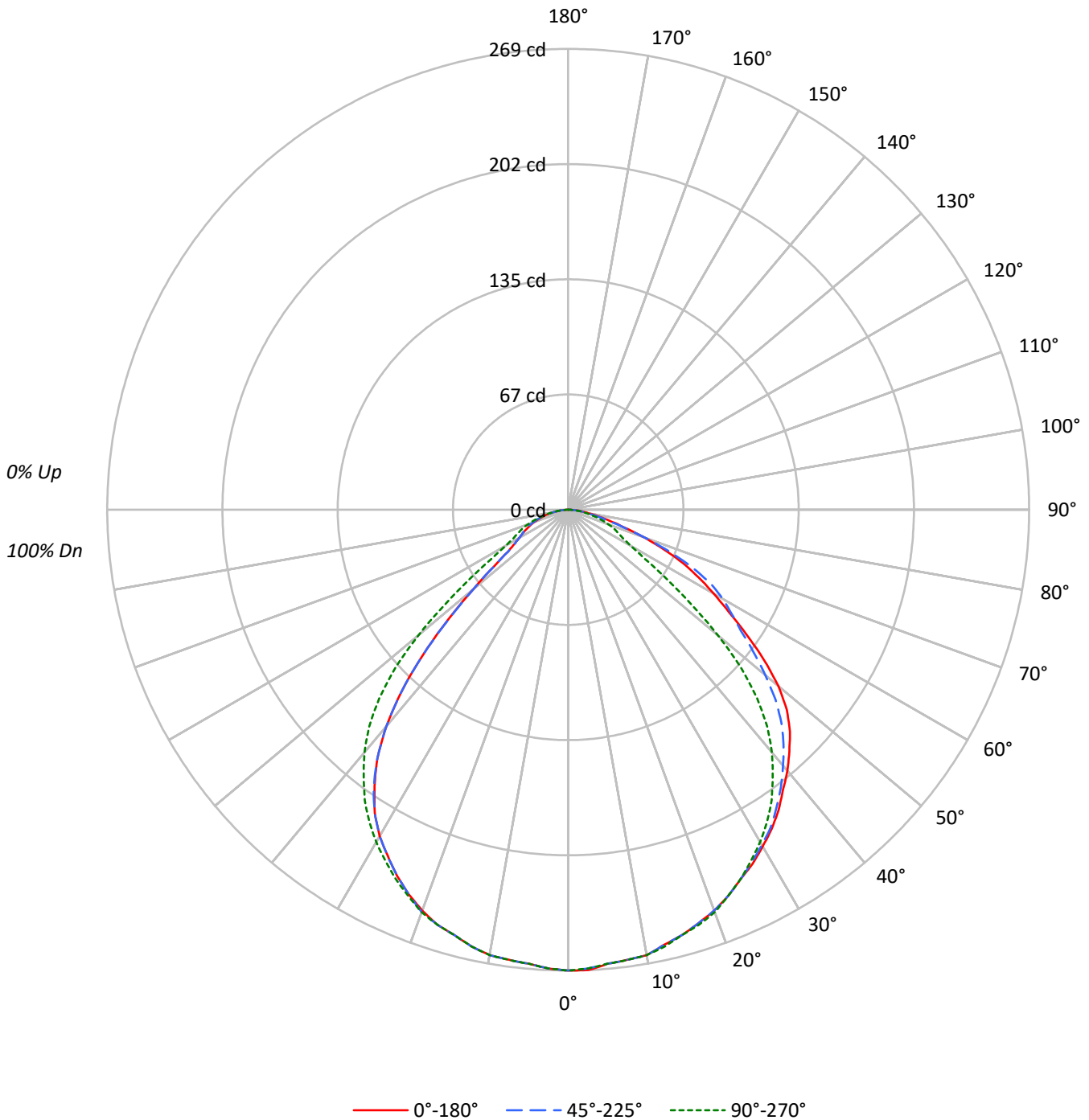
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): 0.12376
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89					87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59					57				
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52					50				
6	74	62	54	48	73	61	53	48	59	52	47	58	52	47	56	51	46					45				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38					36				
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34					33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	16057	16057	16057
5°	15938	15938	15938
10°	16001	16001	16001
15°	15882	15882	15882
20°	15817	15880	15817
25°	15675	15675	15543
30°	15646	15439	15163
35°	15594	15084	14355
40°	15506	14415	12857
45°	15448	13169	10130
50°	14858	10586	6686
55°	13217	7181	4475
60°	11699	5014	3940
65°	10452	4520	3813
70°	8203	4363	3665
75°	5766	3921	3459
80°	4125	3437	3094
85°	4109	2739	2739



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	25.3	4.2	4.2
10°-20°	72.6	12.1	12.1
20°-30°	109.3	18.3	18.3
30°-40°	127.9	21.4	21.4
40°-50°	114.7	19.2	19.2
50°-60°	74.5	12.4	12.5
60°-70°	48.0	8.0	8.0
70°-80°	21.0	3.5	3.5
80°-90°	5.1	0.8	0.8
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°	207.3	34.6	34.7
0°-40°	335.2	56.0	56.1
0°-60°	524.4	87.6	87.7
0°-90°	598.5	100.0	100.1
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°	598.5	100.0	100.1

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	269	269	269	269	269	
5°	266	266	266	266	266	25
15°	257	257	257	257	257	73
25°	238	238	238	236	236	110
35°	214	212	207	198	197	134
45°	183	176	156	120	120	140
55°	127	123	69	43	43	114
65°	74	80	32	28	27	72
75°	25	23	17	16	15	28
85°	6	5	4	4	4	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	269	269	269	269	269	269	269	269	269	269	269
2.5°	269	268	268	268	268	268	268	268	268	268	268
5°	266	266	266	266	266	266	266	266	266	266	266
7.5°	265	265	265	265	265	265	265	265	265	265	265
10°	264	264	264	264	264	264	264	263	264	264	264
12.5°	260	260	260	260	260	260	260	260	260	260	260
15°	257	256	256	256	256	256	256	256	256	257	257
17.5°	253	253	253	253	253	253	253	253	253	253	253
20°	249	249	249	249	249	249	249	249	249	249	250
22.5°	244	244	244	244	244	244	244	244	244	244	244
25°	238	238	238	238	238	238	238	238	238	238	238
27.5°	233	232	232	232	232	232	232	232	232	232	232
30°	227	227	227	227	227	227	226	226	226	226	226
32.5°	221	221	220	220	220	220	220	220	220	220	219
35°	214	213	213	213	213	213	212	212	212	212	212
37.5°	206	206	206	206	205	205	205	204	204	204	203
40°	199	199	199	198	198	198	197	197	196	195	195
42.5°	191	191	191	191	190	189	189	188	187	186	186
45°	183	183	183	182	181	180	179	178	177	176	175
47.5°	173	172	172	171	171	170	168	167	166	164	163
50°	160	159	159	158	157	156	155	153	152	150	149
52.5°	144	143	143	143	142	141	140	139	137	136	134
55°	127	127	127	127	127	126	126	125	124	123	122
57.5°	111	111	112	112	113	113	113	113	113	113	112
60°	98	98	99	100	100	101	102	103	104	104	104
62.5°	86	86	87	87	88	89	90	92	93	94	95
65°	74	74	74	74	75	76	77	78	79	80	82
67.5°	60	60	60	60	60	61	61	62	63	64	65
70°	47	46	46	46	46	46	46	46	46	47	47
72.5°	34	34	34	34	33	33	33	33	33	33	33
75°	25	25	24	24	24	23	23	23	23	23	23
77.5°	18	17	17	17	17	17	16	16	16	16	16
80°	12	12	12	12	12	12	12	12	11	11	11
82.5°	9	9	9	9	8	8	8	8	8	8	8
85°	6	6	6	5	5	5	5	5	5	5	5
87.5°	3	3	3	3	3	3	3	2	2	2	2
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	269	269	269	269	269	269	269	269	269	269	269
2.5°	268	268	268	268	268	268	268	268	268	268	268
5°	266	266	266	266	266	266	266	266	266	266	266
7.5°	265	265	265	265	265	265	265	265	265	265	265
10°	264	264	264	264	264	264	264	264	264	264	264
12.5°	260	260	260	260	261	261	261	261	261	261	261
15°	257	257	257	257	257	257	257	257	257	257	257
17.5°	254	254	254	254	254	254	254	254	254	254	254
20°	250	250	250	250	250	250	250	250	250	250	250
22.5°	244	244	244	245	245	245	245	244	245	244	244
25°	238	238	238	238	238	238	238	238	238	237	237
27.5°	232	232	232	232	232	232	231	231	231	231	230
30°	226	226	226	226	226	225	225	224	224	223	222
32.5°	219	219	219	219	218	218	217	216	215	214	213
35°	211	211	211	210	210	209	208	207	205	204	202
37.5°	203	203	202	201	200	199	198	196	194	192	190
40°	195	194	193	192	191	189	187	185	182	179	175
42.5°	185	184	183	181	179	177	175	172	168	163	158
45°	174	173	171	169	166	163	160	156	151	144	137
47.5°	161	160	157	154	150	146	142	137	131	123	115
50°	147	145	142	137	132	126	120	114	108	100	92
52.5°	132	130	126	119	112	104	97	90	85	78	71
55°	120	117	112	104	94	84	75	69	64	59	55
57.5°	111	108	102	92	80	69	59	52	48	45	43
60°	104	102	95	84	71	58	49	42	39	37	36
62.5°	95	93	87	77	64	51	42	36	33	32	31
65°	82	81	76	67	56	45	37	32	30	29	28
67.5°	66	65	62	55	47	39	32	29	27	26	26
70°	48	48	46	43	37	32	27	25	23	23	23
72.5°	33	33	32	31	28	25	22	21	20	20	19
75°	22	22	22	22	21	19	18	17	16	16	16
77.5°	15	15	15	15	15	14	14	13	13	13	13
80°	11	11	11	11	11	10	10	10	10	10	10
82.5°	8	8	7	7	7	7	7	7	7	7	7
85°	5	5	5	5	5	4	4	4	4	4	4
87.5°	2	2	2	2	2	2	2	2	2	2	2
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	269	269	269	269	269	269	269	269	269	269	269
2.5°	268	268	268	268	268	268	268	268	268	268	268
5°	266	266	266	266	266	266	266	266	266	266	266
7.5°	265	265	265	265	265	265	265	265	265	265	265
10°	264	264	264	264	264	264	264	264	264	264	264
12.5°	261	261	261	261	261	261	261	261	261	261	261
15°	257	257	257	257	257	257	257	258	257	257	257
17.5°	254	254	254	254	254	254	254	254	254	254	254
20°	250	250	250	250	250	250	250	250	250	249	249
22.5°	244	244	244	244	244	243	243	243	243	243	243
25°	237	237	237	236	236	236	236	236	236	236	236
27.5°	230	229	229	229	228	228	228	228	228	228	228
30°	222	221	221	220	220	220	220	220	220	220	220
32.5°	213	212	211	211	210	210	210	210	210	210	210
35°	201	200	199	198	198	198	197	197	197	197	197
37.5°	188	186	185	184	183	183	183	183	183	183	183
40°	172	169	168	167	166	165	165	165	165	165	165
42.5°	153	149	147	145	144	144	144	144	144	144	144
45°	131	126	122	121	120	120	120	120	120	120	120
47.5°	107	101	97	96	95	94	94	94	94	95	95
50°	84	78	75	73	72	72	72	72	72	72	72
52.5°	65	60	57	55	55	55	55	55	55	55	55
55°	50	47	45	44	44	43	43	43	43	43	43
57.5°	40	39	38	37	37	37	37	37	37	37	37
60°	35	34	33	33	33	33	33	33	33	33	33
62.5°	31	31	30	30	30	30	30	30	30	30	30
65°	28	28	28	28	28	28	28	28	28	28	27
67.5°	25	25	25	25	25	25	25	25	25	25	25
70°	23	23	22	22	22	22	22	22	22	22	22
72.5°	19	19	19	19	19	19	19	19	18	18	18
75°	16	16	16	16	16	16	15	15	15	15	15
77.5°	13	13	13	12	12	12	12	12	12	12	12
80°	10	10	10	9	9	9	9	9	9	9	9
82.5°	7	7	7	6	6	6	6	6	6	6	6
85°	4	4	4	4	4	4	4	4	4	4	4
87.5°	2	2	2	1	1	1	1	1	1	1	1
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	269	269	269	269
2.5°	268	268	268	268
5°	266	266	266	266
7.5°	265	265	265	265
10°	264	264	264	264
12.5°	261	261	261	261
15°	257	257	257	257
17.5°	254	254	254	254
20°	249	249	249	249
22.5°	243	243	243	243
25°	236	236	236	236
27.5°	228	228	228	228
30°	219	220	220	220
32.5°	210	210	210	210
35°	197	197	197	197
37.5°	183	183	183	183
40°	165	165	165	165
42.5°	144	144	144	144
45°	120	120	120	120
47.5°	94	95	95	95
50°	72	72	72	72
52.5°	55	55	55	55
55°	43	43	43	43
57.5°	37	37	36	37
60°	33	33	32	33
62.5°	30	30	30	30
65°	27	27	27	27
67.5°	25	25	24	24
70°	22	22	21	21
72.5°	18	18	18	18
75°	15	15	15	15
77.5°	12	12	12	12
80°	9	9	9	9
82.5°	6	6	6	6
85°	4	4	4	4
87.5°	1	1	1	1
90°	0	0	0	0

(END OF REPORT)