

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P27017

Luminaire Tested: **L1LPM930**

Test Date: 11/07/15



Test Information

Test Method: LM-79-08
Report Number: P27017
Test Lab: INNOVATION CENTER-P2
Test Date: 11/07/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: L1LPM930
Description: HALO LED PENDANT 3000K
Light Source: (1) 3000K CREE LED
XHP
Ballast/Driver: (1) LET ELECTRONIC DRIVER
RD-14004

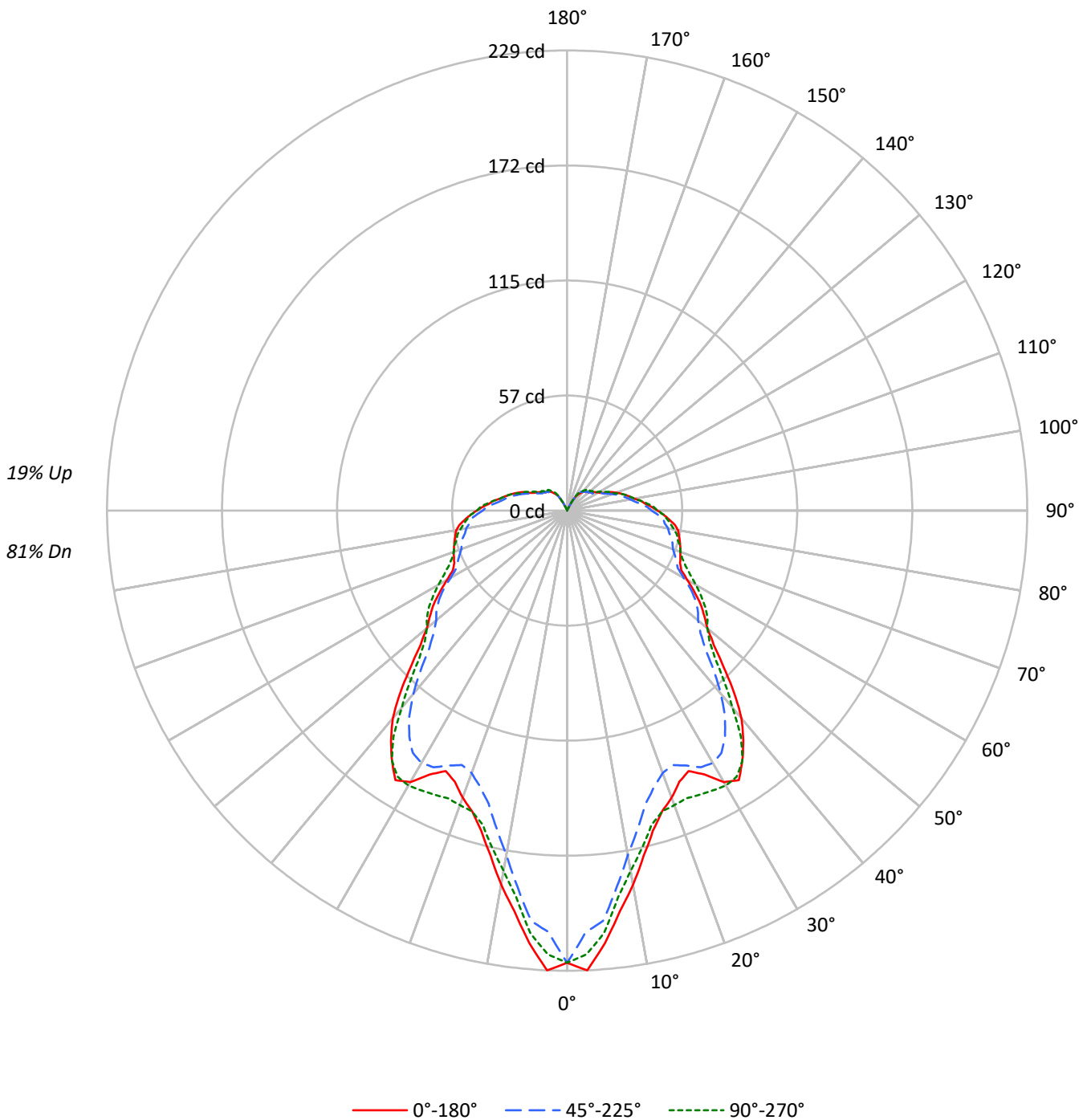
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 667.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 0.99 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 0.25' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 8.3
Input Voltage (V): 120.06
Input Current (A_{in}): 0.69493
Voltage Rise (V): NR
Power Factor: 0.9945
Total Harmonic Distortion (THDi): 9.39%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 24 HR
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	115	115	115	115	110	110	110	110	101	101	101	92	92	92	85	85	85	81
1	102	96	91	86	97	92	87	83	84	80	77	77	74	71	70	68	66	62
2	92	83	75	69	87	79	72	66	72	67	62	66	62	58	61	57	54	50
3	83	72	63	56	79	69	61	55	63	57	51	58	53	48	53	49	45	42
4	76	64	55	48	73	61	53	46	56	49	44	52	46	41	48	43	39	36
5	70	57	48	41	67	55	46	40	50	43	38	47	40	36	43	38	34	31
6	65	51	42	36	62	49	41	35	46	38	33	42	36	31	39	34	30	27
7	60	46	38	31	57	45	37	31	41	34	29	38	32	28	36	30	26	24
8	56	42	34	28	53	41	33	27	38	31	26	35	29	25	33	28	24	21
9	52	39	31	25	50	38	30	25	35	28	23	33	27	22	30	25	21	19
10	49	36	28	23	47	35	27	22	32	26	21	30	24	20	28	23	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38750	38750	38750
5°	34338	31538	33543
10°	28098	24356	27057
15°	23202	19524	22780
20°	20424	16818	20962
25°	18532	16032	20217
30°	19668	15874	19920
35°	18796	14472	18796
40°	16503	12235	15647
45°	13396	9786	12665
50°	11124	8481	11124
55°	10016	7756	10387
60°	8699	6690	9330
65°	8035	6063	8424
70°	8062	5772	8062
75°	8156	5724	8015
80°	8325	5607	8028
85°	8108	5526	7949



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.8	2.8
10°-20°	44.5	6.7
20°-30°	67.2	10.1
30°-40°	88.3	13.2
40°-50°	79.6	11.9
50°-60°	70.9	10.6
60°-70°	61.6	9.2
70°-80°	58.4	8.8
80°-90°	52.8	7.9
90°-100°	41.5	6.2
100°-110°	30.5	4.6
110°-120°	20.8	3.1
120°-130°	14.0	2.1
130°-140°	10.3	1.5
140°-150°	6.5	1.0
150°-160°	1.3	0.2
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	130.5	19.6
0°-40°	218.8	32.8
0°-60°	369.3	55.4
0°-90°	542.1	81.3
90°-120°	92.8	13.9
90°-150°	123.6	18.5
90°-180°	125.0	18.7
0°-180°	667.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	225	225	225	225	225	
5°	216	206	205	202	211	20
15°	165	154	151	154	162	47
25°	143	137	140	144	156	68
35°	152	141	137	140	152	94
45°	110	101	97	98	104	86
55°	81	77	78	80	84	72
65°	62	59	60	62	65	62
75°	58	55	54	54	57	61
85°	51	49	48	47	50	43
90°	45	43	42	43	45	25
95°	39	38	37	37	40	31
105°	30	29	28	28	30	32
115°	21	21	20	20	22	21
125°	16	15	15	15	16	14
135°	13	13	13	13	14	10
145°	10	10	11	11	11	6
155°	2	2	2	2	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	225	225	225	225	225	225	225	225	225	225	225
2.5°	229	219	221	220	215	213	217	216	217	212	210
5°	216	207	209	210	207	206	210	211	212	207	205
7.5°	201	194	196	196	192	191	195	196	196	191	189
10°	189	182	183	182	179	177	180	180	180	176	174
12.5°	176	168	171	169	166	165	168	167	167	164	162
15°	165	158	160	159	156	154	157	156	156	152	151
17.5°	157	150	153	152	149	148	150	149	149	145	144
20°	152	146	147	146	144	143	144	143	144	140	139
22.5°	146	141	142	141	139	138	140	140	141	138	137
25°	143	137	139	139	137	137	140	140	142	140	140
27.5°	148	142	144	144	142	141	145	145	147	144	144
30°	156	150	152	151	148	147	150	149	150	146	145
32.5°	159	152	154	152	149	147	150	149	149	144	143
35°	152	145	147	145	143	141	144	143	144	138	137
37.5°	144	138	139	137	135	134	136	135	136	131	129
40°	135	129	130	128	126	124	126	125	125	120	119
42.5°	123	118	119	116	114	113	115	113	113	109	108
45°	110	105	106	104	103	101	103	102	102	98	97
47.5°	99	95	96	94	93	92	94	94	94	91	90
50°	91	87	89	88	87	86	88	87	88	86	85
52.5°	86	82	84	84	83	82	84	83	85	82	82
55°	81	78	80	78	78	77	79	79	80	78	78
57.5°	75	72	74	73	73	72	73	73	75	73	73
60°	69	66	68	67	67	66	68	68	69	67	67
62.5°	64	62	63	62	62	61	63	63	64	62	62
65°	62	59	61	59	59	59	60	60	61	59	60
67.5°	61	59	60	58	59	58	59	59	59	57	58
70°	60	58	59	57	58	57	58	58	58	56	56
72.5°	59	57	58	56	57	56	57	57	57	55	55
75°	58	56	57	55	55	55	56	55	56	54	54
77.5°	57	54	55	53	54	53	54	54	54	52	52
80°	56	53	54	52	53	52	53	53	53	51	51
82.5°	54	51	52	50	51	50	52	51	51	49	49
85°	51	49	50	48	49	49	49	49	49	47	48
87.5°	48	46	47	45	46	46	47	47	47	45	45
90°	45	43	44	42	43	43	44	43	44	42	42
92.5°	42	40	41	40	41	40	41	41	41	39	40
95°	39	38	39	37	38	38	38	38	38	37	37
97.5°	37	35	36	35	36	35	36	35	35	34	34
100°	34	33	34	33	33	33	33	33	33	32	32
102.5°	32	31	32	31	31	31	31	31	31	30	30
105°	30	29	30	29	29	29	29	29	29	28	28
107.5°	28	27	28	27	27	27	27	27	27	26	26
110°	26	25	25	25	25	25	25	25	25	24	24



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	24	23	23	23	23	23	23	23	23	22	22
115°	21	20	21	21	21	21	21	21	21	20	20
117.5°	19	19	19	19	19	19	19	19	19	18	19
120°	18	17	18	17	17	17	17	17	18	17	17
122.5°	17	16	16	16	16	16	16	16	16	16	16
125°	16	15	15	15	15	15	15	15	15	15	15
127.5°	15	14	15	14	14	14	15	15	15	14	15
130°	14	14	14	14	14	14	14	14	14	14	14
132.5°	14	13	14	13	13	13	14	14	14	13	14
135°	13	13	13	13	13	13	13	13	13	13	13
137.5°	13	12	13	12	12	12	13	13	13	12	13
140°	12	12	12	12	12	12	12	12	12	12	12
142.5°	11	11	11	11	11	11	11	11	12	11	12
145°	10	10	10	10	10	10	10	10	11	10	11
147.5°	9	9	9	8	9	9	9	9	9	9	9
150°	7	7	7	7	7	7	7	7	7	7	7
152.5°	4	4	4	4	4	4	4	4	4	4	4
155°	2	2	2	2	2	2	2	2	2	2	2
157.5°	1	0	1	1	1	1	1	1	1	1	1
160°	1	0	0	0	0	0	0	0	0	0	1
162.5°	1	0	1	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	225	225	225	225	225	225	225	225	225	225
2.5°	217	211	210	219	212	218	216	218	213	221
5°	211	203	202	210	202	208	205	208	203	211
7.5°	194	186	186	193	186	191	188	191	186	194
10°	179	173	173	180	173	178	176	179	175	182
12.5°	167	162	162	169	163	168	167	170	166	172
15°	156	152	153	160	154	159	158	160	156	162
17.5°	148	145	146	153	148	152	152	155	151	157
20°	143	139	140	147	142	147	148	152	149	156
22.5°	141	138	139	147	141	147	148	153	149	155
25°	145	141	142	149	144	148	150	154	150	156
27.5°	148	144	144	151	145	150	150	155	151	157
30°	149	145	146	153	147	151	152	156	152	158
32.5°	147	144	145	152	146	150	151	155	151	157
35°	140	137	137	145	140	143	144	149	145	152
37.5°	132	128	129	135	130	135	136	140	136	142
40°	121	118	118	123	119	123	124	128	124	128
42.5°	109	107	107	113	108	111	112	114	111	116
45°	99	97	97	102	98	101	101	103	100	104
47.5°	92	90	90	95	91	93	94	95	92	96
50°	87	85	86	90	86	88	89	91	87	91
52.5°	83	82	82	87	83	85	87	88	84	88
55°	79	78	79	83	80	81	83	85	81	84
57.5°	74	73	73	78	75	77	78	80	76	79
60°	69	68	69	72	70	71	73	74	71	74
62.5°	64	64	64	67	65	65	68	69	66	69
65°	61	61	61	64	62	62	64	65	62	65
67.5°	59	59	59	62	59	60	62	63	60	62
70°	57	57	57	60	57	58	59	61	58	60
72.5°	56	56	55	58	56	56	58	59	56	59
75°	54	54	54	57	54	54	56	57	55	57
77.5°	53	53	53	55	53	53	55	55	53	56
80°	51	52	51	53	51	51	53	54	52	54
82.5°	50	50	50	52	49	50	52	52	50	52
85°	48	48	48	50	47	48	50	50	48	50
87.5°	46	46	45	47	45	45	47	48	46	48
90°	43	43	43	45	43	43	45	45	43	45
92.5°	40	40	40	42	40	40	42	42	41	43
95°	37	37	37	39	37	37	39	39	38	40
97.5°	34	35	35	36	34	35	37	37	35	37
100°	32	33	32	34	32	32	34	34	33	34
102.5°	30	30	30	32	30	30	32	32	31	32
105°	28	28	28	29	28	28	30	30	28	30
107.5°	26	26	26	27	26	26	27	28	26	28
110°	24	24	24	25	24	24	25	25	24	25



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	22	22	22	23	22	22	23	23	23	24
115°	20	21	20	21	20	20	22	22	21	22
117.5°	19	19	19	20	19	19	20	20	19	20
120°	17	18	17	18	17	17	18	18	18	19
122.5°	16	16	16	17	16	16	17	17	16	17
125°	15	15	15	16	15	15	16	16	16	16
127.5°	15	15	15	15	15	15	16	16	15	16
130°	14	14	14	15	14	14	15	15	14	15
132.5°	14	14	14	14	14	14	14	14	14	15
135°	13	13	13	14	13	13	14	14	13	14
137.5°	13	13	13	13	13	13	14	13	13	14
140°	12	12	12	13	12	12	13	13	12	13
142.5°	12	12	11	12	11	12	12	12	12	12
145°	11	11	11	11	11	11	11	11	11	11
147.5°	9	9	9	10	9	9	10	9	9	10
150°	7	7	7	7	7	7	7	7	7	7
152.5°	4	4	4	5	4	4	4	4	4	4
155°	2	2	2	2	2	2	2	2	2	2
157.5°	1	1	1	1	1	1	1	1	1	1
160°	1	0	0	1	1	0	1	1	0	1
162.5°	0	0	0	1	0	0	1	1	0	1
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)