

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: P231777

Luminaire Tested: **HU30BSC24P**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231777  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1709-269-3-R2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HU30BSC24P  
Description: HALO UNDERCAB COLOR TUNABLE 24"  
Light Source: (144) 2700K CCT, 95 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

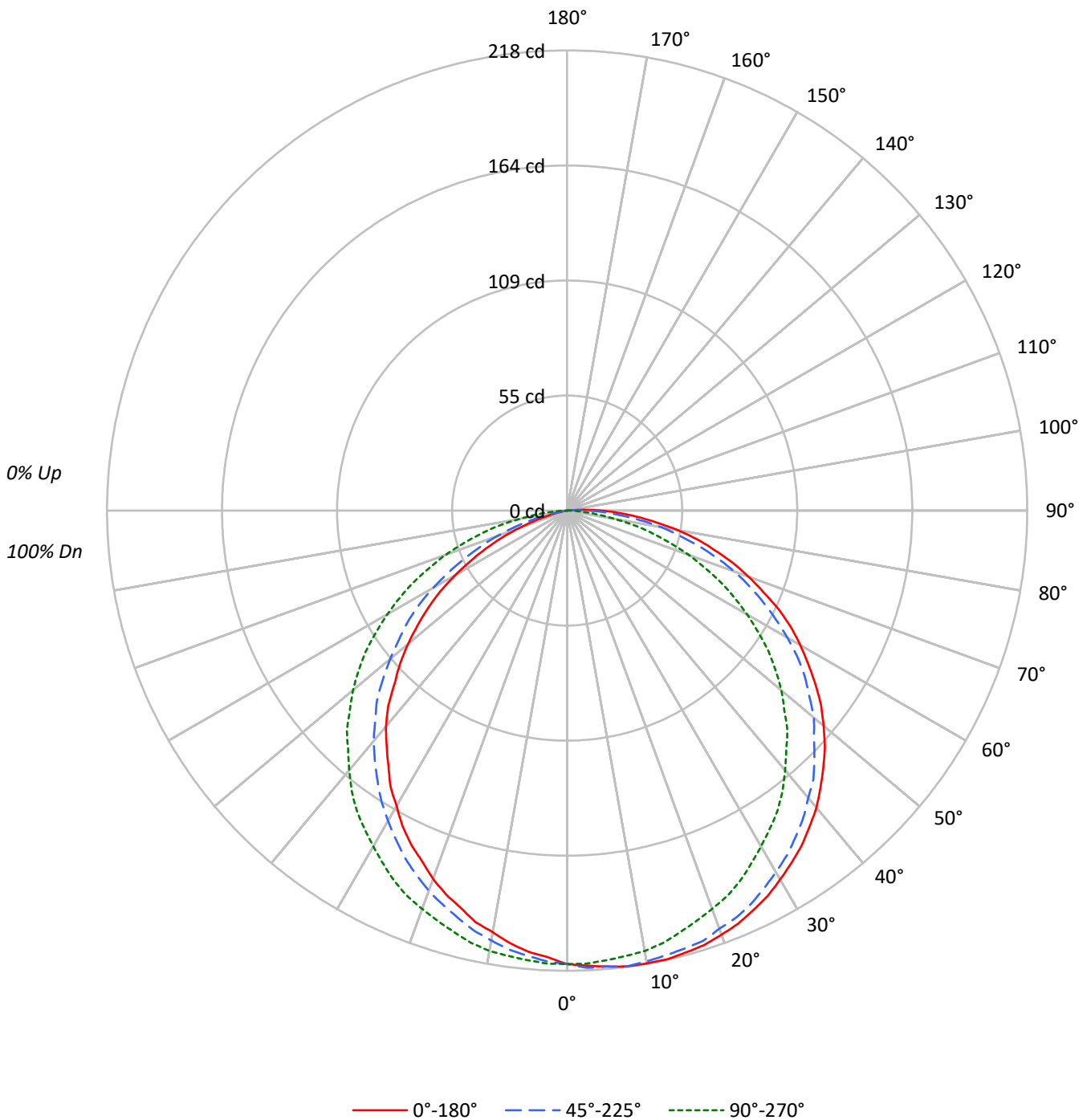
Lumens per Lamp: N/A  
Luminaire Lumens: 627.0 lumens  
Efficiency: N/A  
Efficacy: 56.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 1.91' x L: 0.09' x H: 0.01')  
CIE Type: Direct

Input Watts (W): 11.1  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	13699	13699	13699
5°	13738	13680	13294
10°	13818	13702	12866
15°	13876	13634	12468
20°	13914	13601	12085
25°	13928	13595	11654
30°	13915	13485	11143
35°	13932	13472	10617
40°	13919	13309	10115
45°	13855	13240	9312
50°	13800	13061	8562
55°	13670	12853	7644
60°	13509	12433	6485
65°	13303	11977	5085
70°	12879	11243	3396
75°	12379	10190	1541
80°	11719	8229	220
85°	10329	5510	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.4	3.2
10°-20°	58.5	9.3
20°-30°	89.0	14.2
30°-40°	107.8	17.2
40°-50°	112.5	17.9
50°-60°	102.0	16.3
60°-70°	77.3	12.3
70°-80°	43.8	7.0
80°-90°	14.4	2.3
90°-100°	1.2	0.2
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	167.8	26.8
0°-40°	275.7	44.0
0°-60°	490.2	78.2
0°-90°	625.8	99.8
90°-120°	1.2	0.2
90°-150°	1.2	0.2
90°-180°	1.0	0.2
0°-180°	627.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	215	215	215	215	215	
5°	217	217	214	212	210	21
15°	217	215	207	200	195	61
25°	209	206	194	182	175	96
35°	194	189	174	157	148	121
45°	172	166	148	128	115	133
55°	144	138	116	92	80	128
65°	110	102	80	53	42	109
75°	72	64	42	17	9	77
85°	33	25	8	0	0	31
90°	16	10	0	0	0	9
95°	2	0	0	0	0	2
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°	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8
2.5°	215.8	216.8	216.8	215.8	214.8	214.8	213.8	213.8	211.8
5°	216.8	217.8	216.8	215.8	213.8	212.8	211.8	210.8	209.8
7.5°	217.8	218.8	217.8	214.8	212.8	211.8	209.8	207.8	206.8
10°	217.8	218.8	216.8	214.8	211.8	208.8	206.8	204.8	202.8
12.5°	217.8	217.8	215.8	212.8	209.8	206.8	203.8	201.8	199.8
15°	216.8	216.8	214.8	211.8	206.8	203.8	199.8	197.8	194.8
17.5°	215.8	215.8	213.8	208.8	203.8	199.8	195.8	192.7	190.7
20°	213.8	213.8	210.8	206.8	200.8	195.8	191.7	187.7	185.7
22.5°	211.8	211.8	208.8	202.8	197.8	191.7	186.7	182.7	179.7
25°	208.8	208.8	205.8	199.8	193.7	186.7	181.7	177.7	174.7
27.5°	205.8	205.8	201.8	195.8	188.7	181.7	175.7	170.7	168.7
30°	201.8	201.8	197.8	190.7	183.7	176.7	169.7	164.6	161.6
32.5°	197.8	197.8	193.7	186.7	178.7	170.7	163.6	157.6	155.6
35°	193.7	192.7	188.7	181.7	173.7	164.6	156.6	150.6	147.6
37.5°	188.7	187.7	183.7	175.7	167.6	157.6	149.6	143.6	140.5
40°	183.7	182.7	177.7	170.7	160.6	151.6	142.6	135.5	133.5
42.5°	177.7	176.7	172.7	163.6	153.6	144.6	134.5	127.5	125.5
45°	171.7	170.7	165.6	157.6	147.6	136.5	127.5	119.5	115.4
47.5°	165.6	164.6	158.6	150.6	139.5	128.5	118.5	110.4	107.4
50°	158.6	156.6	152.6	142.6	132.5	120.5	109.4	101.4	98.4
52.5°	151.6	149.6	144.6	135.5	124.5	112.4	100.4	92.4	89.3
55°	143.6	142.6	137.5	127.5	116.5	104.4	92.4	83.3	80.3
57.5°	135.5	133.5	129.5	119.5	107.4	94.4	83.3	74.3	71.3
60°	127.5	125.5	120.5	110.4	98.4	86.3	73.3	64.2	61.2
62.5°	119.5	117.5	111.4	101.4	89.3	76.3	63.2	54.2	51.2
65°	110.4	108.4	102.4	93.4	80.3	67.3	53.2	45.2	42.2
67.5°	100.4	99.4	93.4	83.3	70.3	57.2	44.2	36.1	33.1
70°	91.4	89.3	84.3	74.3	61.2	47.2	35.1	27.1	24.1
72.5°	82.3	80.3	74.3	64.2	51.2	38.1	26.1	19.1	16.1
75°	72.3	70.3	64.2	54.2	42.2	28.1	17.1	11.0	9.0
77.5°	63.2	60.2	54.2	45.2	33.1	19.1	10.0	6.0	4.0
80°	53.2	50.2	45.2	35.1	23.1	12.0	5.0	2.0	1.0
82.5°	42.2	40.2	35.1	25.1	15.1	5.0	1.0	0.0	0.0
85°	33.1	31.1	25.1	17.1	8.0	2.0	0.0	0.0	0.0
87.5°	24.1	22.1	17.1	9.0	2.0	0.0	0.0	0.0	0.0
90°	16.1	14.1	10.0	4.0	0.0	0.0	0.0	0.0	0.0
92.5°	9.0	7.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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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)