



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  
Eaton Lighting Division  
(formerly Cooper Lighting)

Brand: HALO

Report Number: P328677

Luminaire Tested: **L815SQ20WW940MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P328677  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-290-21)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: EATON (FORMERLY COOPER LIGHTING)  
Product Line: HALO  
Catalog Number: L815SQ20WW940MB  
Description: Square Track 13x1, 2000lm, WW, 4000K, black finish  
Light Source: (13) 4000K CCT, 92 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1773.0 lumens  
Efficiency: N/A  
Efficacy: 66.4 lumens/watt  
Spacing Criteria (0/90/45): 0.56 / 0.82 / 0.73  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

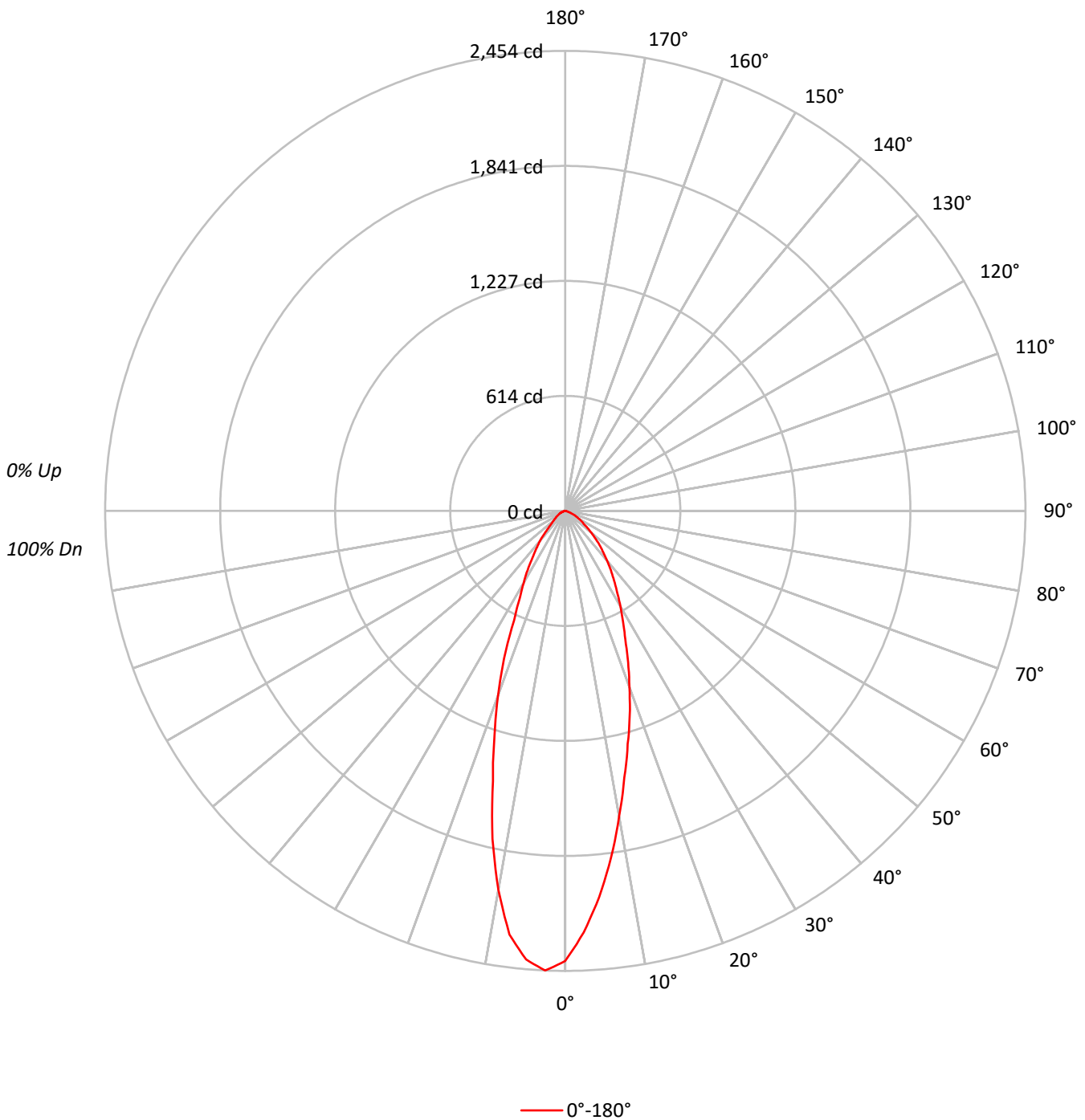
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT





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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	94	94	94	92
2	107	102	97	93	105	100	96	92	97	93	90	93	91	88	91	89	87	87	87	87	85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	80	80	80	78
4	95	87	81	77	93	86	81	76	84	79	75	82	78	74	80	76	74	74	74	74	72
5	90	81	75	70	89	80	74	70	78	73	69	77	72	69	75	71	68	68	68	68	67
6	85	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	63	63	63	63	62
7	81	71	65	60	80	71	65	60	69	64	60	68	63	60	67	63	59	59	59	59	58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	56	56	56	54
9	73	63	57	53	72	63	57	53	62	56	53	61	56	52	60	56	52	52	52	52	51
10	70	60	54	50	69	59	54	50	59	53	50	58	53	49	57	53	49	49	49	49	48

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

	0°	90°	180°
0°	232579	232579	232579
5°	201220	226329	233564
10°	162596	221116	201845
15°	129037	200465	149707
20°	102979	173979	107814
25°	80820	140144	69040
30°	65741	107746	49533
35°	53573	76256	35964
40°	43870	49421	26835
45°	35511	31593	16769
50°	27369	20150	12147
55°	20335	13951	10168
60°	16217	10482	8506
65°	12630	7244	7244
70°	7506	5212	6061
75°	4192	3069	3818
80°	558	558	1116
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.6	11.9
10°-20°	470.0	26.5
20°-30°	457.4	25.8
30°-40°	319.7	18.0
40°-50°	177.2	10.0
50°-60°	88.3	5.0
60°-70°	39.1	2.2
70°-80°	10.6	0.6
80°-90°	0.2	0.0
90°-100°	0.0	0.0
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
<b>0°-30°</b>	<b>1138.0</b>	<b>64.2</b>
<b>0°-40°</b>	<b>1457.6</b>	<b>82.2</b>
<b>0°-60°</b>	<b>1723.2</b>	<b>97.2</b>
<b>0°-90°</b>	<b>1773.0</b>	<b>100.0</b>
90°-120°	0.0	0.0
90°-150°	0.0	0.0
<b>90°-180°</b>	<b>0.0</b>	<b>0.0</b>
<b>0°-180°</b>	<b>1773.0</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2401	2401	2401	2401	2401	
1°	2341	2362	2387	2409	2422	5
2°	2281	2324	2373	2417	2443	0
3°	2214	2278	2358	2413	2443	13
4°	2142	2224	2343	2398	2423	0
5°	2069	2170	2327	2382	2402	20
6°	1988	2119	2317	2348	2353	0
7°	1908	2068	2306	2314	2304	0
8°	1824	2011	2290	2277	2234	28
9°	1739	1948	2269	2239	2143	0
10°	1653	1884	2248	2200	2052	99
15°	1287	1552	1999	1827	1493	277
25°	756	998	1311	961	646	352
35°	453	586	645	396	304	285
45°	259	316	231	153	122	200
55°	120	153	83	65	60	112
65°	55	48	32	29	32	53
75°	11	10	8	9	10	12
85°	0	0	0	0	0	0
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°	2400.8	2400.8	2400.8	2400.8	2400.8	2400.8	2400.8	2400.8	2400.8
2.5°	2250.8	2272.3	2304.9	2336.5	2366.1	2398.8	2421.2	2444.7	2453.9
5°	2069.2	2109.0	2170.2	2259.0	2327.4	2366.1	2382.5	2388.6	2401.8
7.5°	1867.2	1935.6	2042.7	2192.7	2300.8	2344.7	2296.8	2274.3	2279.4
10°	1652.9	1718.2	1884.5	2083.5	2247.8	2289.6	2199.8	2091.7	2051.9
12.5°	1457.0	1527.4	1723.3	1954.9	2119.2	2152.9	2042.7	1867.2	1792.7
15°	1286.6	1361.1	1551.9	1819.2	1998.8	2007.0	1827.4	1611.1	1492.7
17.5°	1143.8	1196.8	1407.0	1657.0	1860.1	1821.3	1609.1	1368.3	1255.0
20°	998.9	1053.0	1263.2	1502.9	1687.6	1631.5	1382.5	1136.6	1045.8
22.5°	875.4	923.4	1126.4	1361.1	1504.0	1422.3	1162.2	922.4	852.0
25°	756.1	811.2	997.9	1205.0	1311.1	1201.9	961.1	740.8	645.9
27.5°	666.3	714.2	873.4	1056.0	1139.7	1021.3	783.6	581.6	526.5
30°	587.7	629.5	771.4	919.3	963.2	860.1	626.5	474.5	442.8
32.5°	515.3	553.0	671.4	790.8	812.2	702.0	501.0	396.9	374.5
35°	453.0	488.7	585.7	668.3	644.8	570.4	395.9	320.4	304.1
37.5°	398.9	425.5	510.2	556.1	514.2	456.1	314.3	251.0	252.0
40°	346.9	371.4	434.7	455.1	390.8	356.1	245.9	193.9	212.2
42.5°	299.0	323.4	372.4	362.2	307.1	276.5	192.8	149.0	163.3
45°	259.2	275.5	316.3	293.9	230.6	214.3	153.0	119.4	122.4
47.5°	217.3	236.7	265.3	230.6	172.4	167.3	119.4	99.0	99.0
50°	181.6	197.9	223.5	178.6	133.7	129.6	93.9	81.6	80.6
52.5°	150.0	165.3	185.7	135.7	102.0	104.1	77.5	69.4	69.4
55°	120.4	132.6	153.0	108.2	82.6	82.6	65.3	59.2	60.2
57.5°	101.0	105.1	120.4	84.7	66.3	65.3	52.0	50.0	51.0
60°	83.7	84.7	90.8	68.4	54.1	51.0	42.9	41.8	43.9
62.5°	67.3	67.3	68.4	54.1	41.8	39.8	34.7	35.7	37.8
65°	55.1	52.0	48.0	41.8	31.6	30.6	28.6	30.6	31.6
67.5°	37.8	38.8	35.7	29.6	24.5	23.5	24.5	24.5	26.5
70°	26.5	26.5	24.5	21.4	18.4	18.4	19.4	19.4	21.4
72.5°	17.3	18.4	15.3	14.3	13.3	12.2	14.3	14.3	15.3
75°	11.2	10.2	10.2	8.2	8.2	8.2	9.2	10.2	10.2
77.5°	4.1	4.1	4.1	4.1	4.1	4.1	5.1	6.1	6.1
80°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)