

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: P130238

Luminaire Tested: **HL612ICAT - HLM6927 - HL6WFL - 455SC**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130238  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33486)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL612ICAT - HLM6927 - HL6WFL - 455SC  
Description: HALO ALLSLOPE 6" 21W, Specular Clear Reflector, White Metal Trim Ring using 55 Degree Optic at a 6-12 Pitch  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1445.4 lumens  
Efficiency: N/A  
Efficacy: 75.7 lumens/watt  
Spacing Criteria (0/90/45): 1.47 / 0.84 / 1.17  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

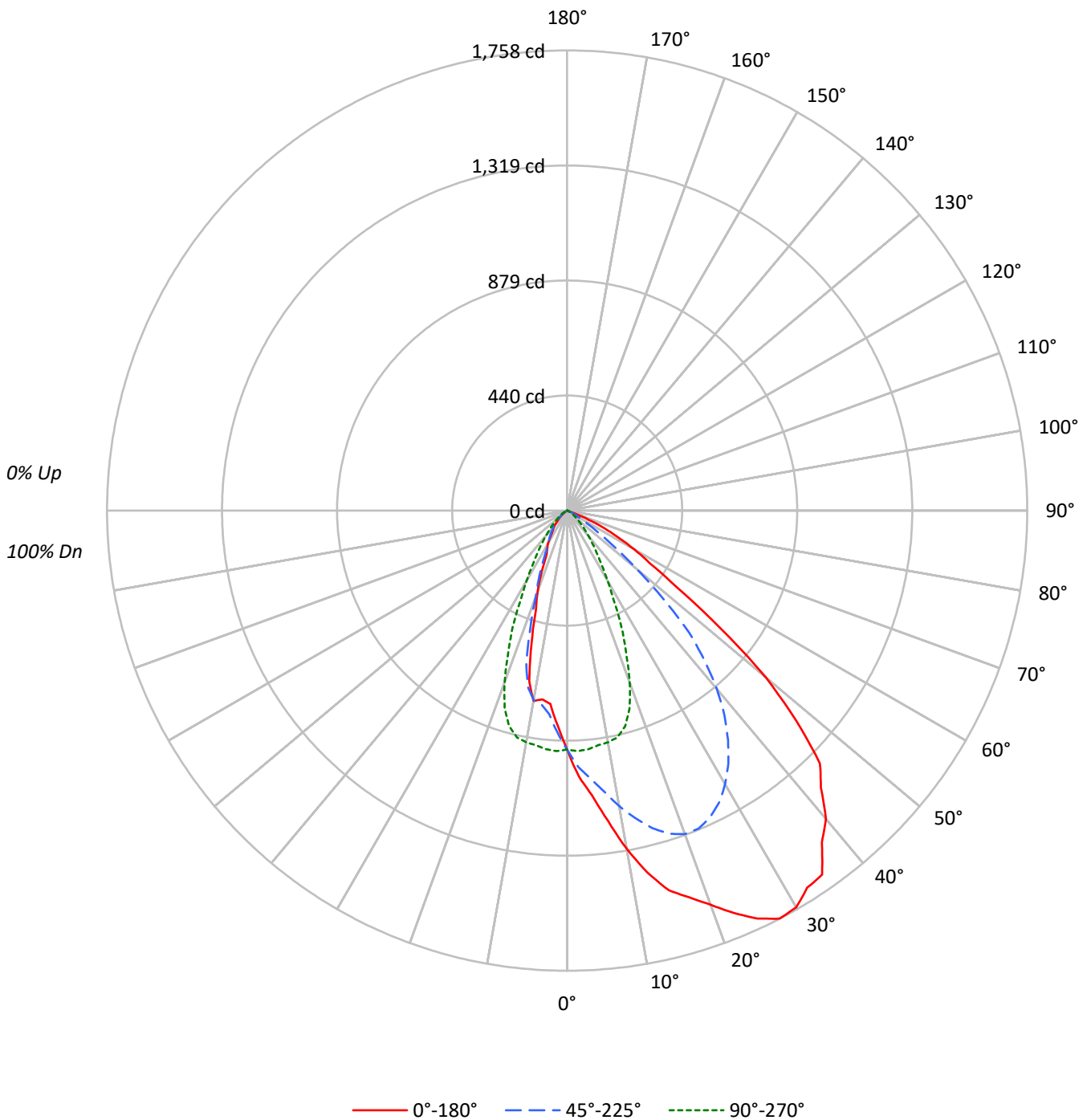
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91				91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60				60
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54				54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				49
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45				45
9	67	55	48	44	65	55	48	43	54	48	43	53	47	43	52	47	43	41				41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38				38

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

	0°	90°	180°
0°	54498	54498	54498
5°	63904	53592	43403
10°	76021	52051	42747
15°	86666	49238	30269
20°	92793	40509	19044
25°	100763	28855	10794
30°	104599	18417	8856
35°	104340	12042	5904
40°	98012	8041	4581
45°	91090	5382	3035
50°	69773	3414	1657
55°	38534	2218	332
60°	24118	1316	0
65°	13010	531	0
70°	1775	151	0
75°	174	81	0
80°	0	206	0
85°	0	254	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.9	6.1
10°-20°	256.4	17.7
20°-30°	336.5	23.3
30°-40°	351.0	24.3
40°-50°	275.3	19.0
50°-60°	111.0	7.7
60°-70°	25.4	1.8
70°-80°	1.3	0.1
80°-90°	0.5	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
0°-30°	680.8	47.1
0°-40°	1031.9	71.4
0°-60°	1418.2	98.1
0°-90°	1445.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1445.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	913	913	913	913	913	
5°	1091	1028	915	781	741	111
15°	1502	1256	854	602	525	424
25°	1720	1292	492	225	184	791
35°	1698	1072	196	110	96	1042
45°	1366	660	81	52	46	1011
55°	511	137	29	15	4	502
65°	145	21	6	1	0	144
75°	2	2	1	1	0	4
85°	0	1	2	1	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°	913.0	913.0	913.0	913.0	913.0	913.0	913.0	913.0	913.0
2.5°	1015.7	982.7	980.5	940.1	919.6	883.6	849.1	831.5	822.7
5°	1091.3	1047.3	1027.5	969.5	915.2	841.8	780.9	752.3	741.2
7.5°	1196.3	1136.8	1082.5	987.1	904.2	805.8	747.8	728.8	727.3
10°	1313.0	1233.7	1146.4	1007.6	899.0	783.8	735.4	735.4	738.3
12.5°	1416.4	1326.9	1203.6	1031.1	887.3	753.0	690.6	680.3	668.6
15°	1502.3	1406.9	1255.7	1038.5	853.5	695.0	602.5	545.3	524.7
17.5°	1548.5	1470.0	1294.6	1028.9	793.3	599.6	465.3	405.8	397.0
20°	1602.1	1505.2	1315.2	993.7	699.4	470.4	347.9	333.9	328.8
22.5°	1663.8	1529.5	1314.4	934.3	587.9	355.9	283.3	263.5	253.9
25°	1719.5	1546.3	1292.4	860.9	492.4	273.7	224.6	188.6	184.2
27.5°	1757.7	1554.4	1257.2	774.3	383.8	221.6	171.7	157.1	163.7
30°	1750.4	1550.7	1207.3	686.9	308.2	179.1	140.2	144.6	148.2
32.5°	1707.8	1541.2	1145.6	599.6	242.9	147.5	126.2	123.3	118.2
35°	1698.3	1514.0	1071.5	511.5	196.0	123.3	110.1	99.1	96.1
37.5°	1598.4	1452.4	987.8	427.1	159.3	104.9	93.9	86.6	85.9
40°	1538.3	1366.5	888.8	347.1	126.2	90.3	80.0	73.4	71.9
42.5°	1434.8	1255.0	776.5	263.5	102.0	76.3	66.8	57.2	55.8
45°	1365.8	1126.5	660.5	182.7	80.7	61.6	52.1	47.0	45.5
47.5°	1185.3	976.8	491.7	127.0	62.4	49.9	41.1	36.0	35.2
50°	989.3	787.5	346.4	84.4	48.4	38.9	32.3	26.4	23.5
52.5°	736.1	568.8	225.3	55.8	38.2	30.1	23.5	16.1	13.9
55°	510.8	386.8	137.2	41.8	29.4	22.8	15.4	8.1	4.4
57.5°	374.3	270.8	84.4	31.6	22.0	16.1	8.8	1.5	0.0
60°	295.0	197.4	52.8	23.5	16.1	10.3	2.9	0.0	0.0
62.5°	212.8	133.6	33.8	16.1	10.3	5.9	0.7	0.0	0.0
65°	144.6	74.9	21.3	11.0	5.9	2.2	0.7	0.0	0.0
67.5°	75.6	35.2	11.0	5.9	2.9	1.5	0.7	0.0	0.0
70°	17.6	11.0	5.1	2.9	1.5	0.7	0.7	0.0	0.0
72.5°	4.4	3.7	2.2	1.5	0.7	0.7	0.7	0.0	0.0
75°	1.5	1.5	1.5	0.7	0.7	0.7	0.7	0.0	0.0
77.5°	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0
80°	0.0	0.0	0.7	0.7	1.5	0.7	0.7	0.0	0.0
82.5°	0.0	0.0	0.7	0.7	1.5	0.7	0.7	0.0	0.0
85°	0.0	0.0	0.7	0.7	1.5	0.7	0.7	0.0	0.0
87.5°	0.0	0.0	0.7	0.7	1.5	0.7	0.7	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)