

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: P130101

Luminaire Tested: **HL618TAT - HLM6935 - HL6WFL - 455SC**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130101  
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: HL618TAT - HLM6935 - HL6WFL - 455SC  
Description: HALO ALLSLOPE 6" 30W, Specular Clear Reflector, White Metal Trim  
Ring using 55 Degree Optic at a 6-12 Pitch  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2240.3 lumens  
Efficiency: N/A  
Efficacy: 81.2 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

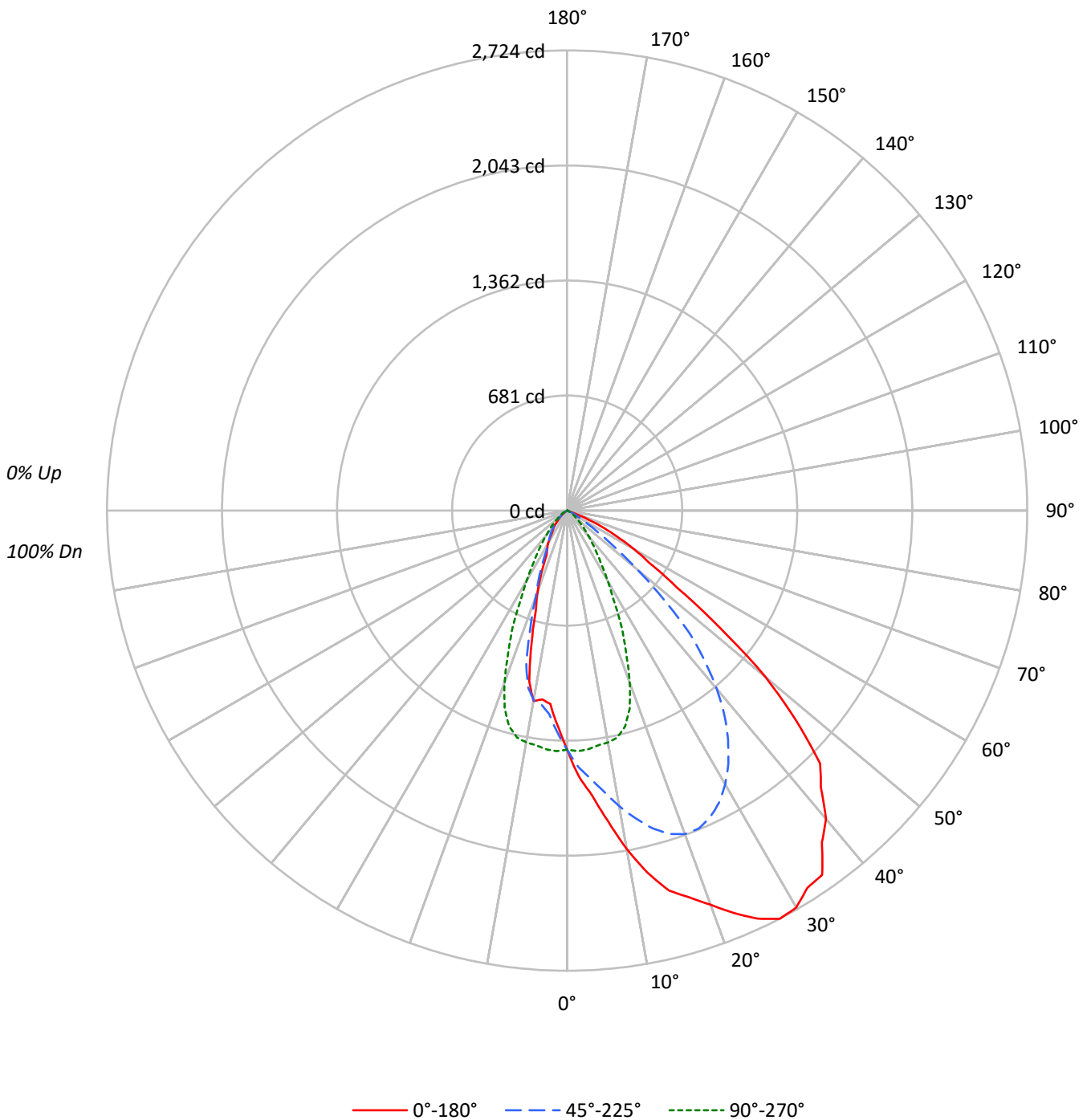
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91	91	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82	82	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74	74	74
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66	66	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60	60	60
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54	54	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49	49	49
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45	45	45
9	67	55	48	44	65	55	48	43	54	48	43	53	47	43	52	47	43	41	41	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38	38	38

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

	0°	90°	180°
0°	84462	84462	84462
5°	99044	83058	67271
10°	117818	80676	66254
15°	134323	76317	46918
20°	143821	62785	29516
25°	156176	44724	16730
30°	162116	28546	13732
35°	161711	18659	9154
40°	151902	12463	7104
45°	141177	8343	4702
50°	108141	5297	2567
55°	59725	3432	513
60°	37386	2044	0
65°	20163	819	0
70°	2754	232	0
75°	266	127	0
80°	0	315	0
85°	0	390	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.2	6.1
10°-20°	397.4	17.7
20°-30°	521.6	23.3
30°-40°	544.0	24.3
40°-50°	426.7	19.0
50°-60°	172.1	7.7
60°-70°	39.4	1.8
70°-80°	2.0	0.1
80°-90°	0.8	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°	1055.2	47.1
0°-40°	1599.3	71.4
0°-60°	2198.0	98.1
0°-90°	2240.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2240.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1415	1415	1415	1415	1415	
5°	1691	1592	1418	1210	1149	172
15°	2328	1946	1323	934	813	657
25°	2665	2003	763	348	286	1226
35°	2632	1661	304	171	149	1614
45°	2117	1024	125	81	70	1567
55°	792	213	46	24	7	777
65°	224	33	9	1	0	224
75°	2	2	1	1	0	6
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°	1415.0	1415.0	1415.0	1415.0	1415.0	1415.0	1415.0	1415.0	1415.0
2.5°	1574.3	1523.1	1519.7	1457.1	1425.2	1369.5	1316.1	1288.8	1275.1
5°	1691.4	1623.2	1592.5	1502.6	1418.4	1304.7	1210.3	1165.9	1148.8
7.5°	1854.1	1761.9	1677.8	1529.9	1401.4	1248.9	1159.1	1129.5	1127.2
10°	2034.9	1912.1	1776.7	1561.7	1393.4	1214.8	1139.7	1139.7	1144.3
12.5°	2195.3	2056.5	1865.4	1598.1	1375.2	1167.0	1070.4	1054.4	1036.2
15°	2328.4	2180.5	1946.2	1609.5	1322.9	1077.2	933.9	845.1	813.3
17.5°	2400.1	2278.4	2006.5	1594.7	1229.6	929.3	721.2	629.0	615.4
20°	2483.1	2332.9	2038.3	1540.1	1084.0	729.1	539.2	517.5	509.6
22.5°	2578.6	2370.5	2037.2	1448.0	911.1	551.7	439.1	408.4	393.6
25°	2665.1	2396.6	2003.1	1334.3	763.2	424.3	348.1	292.3	285.5
27.5°	2724.2	2409.2	1948.5	1200.0	594.9	343.5	266.2	243.4	253.7
30°	2712.9	2403.5	1871.1	1064.7	477.7	277.5	217.3	224.1	229.8
32.5°	2646.9	2388.7	1775.6	929.3	376.5	228.6	195.6	191.1	183.1
35°	2632.1	2346.6	1660.7	792.8	303.7	191.1	170.6	153.6	149.0
37.5°	2477.4	2251.1	1531.0	662.0	246.8	162.7	145.6	134.2	133.1
40°	2384.1	2118.0	1377.5	538.0	195.6	139.9	124.0	113.7	111.5
42.5°	2223.8	1945.1	1203.4	408.4	158.1	118.3	103.5	88.7	86.4
45°	2116.8	1746.0	1023.7	283.2	125.1	95.5	80.8	72.8	70.5
47.5°	1837.0	1514.0	762.1	196.8	96.7	77.3	63.7	55.7	54.6
50°	1533.3	1220.5	536.9	130.8	75.1	60.3	50.0	40.9	36.4
52.5°	1140.9	881.5	349.2	86.4	59.1	46.6	36.4	25.0	21.6
55°	791.7	599.4	212.7	64.8	45.5	35.3	23.9	12.5	6.8
57.5°	580.1	419.7	130.8	48.9	34.1	25.0	13.6	2.3	0.0
60°	457.3	306.0	81.9	36.4	25.0	15.9	4.5	0.0	0.0
62.5°	329.9	207.0	52.3	25.0	15.9	9.1	1.1	0.0	0.0
65°	224.1	116.0	33.0	17.1	9.1	3.4	1.1	0.0	0.0
67.5°	117.2	54.6	17.1	9.1	4.5	2.3	1.1	0.0	0.0
70°	27.3	17.1	8.0	4.5	2.3	1.1	1.1	0.0	0.0
72.5°	6.8	5.7	3.4	2.3	1.1	1.1	1.1	0.0	0.0
75°	2.3	2.3	2.3	1.1	1.1	1.1	1.1	0.0	0.0
77.5°	0.0	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0
80°	0.0	0.0	1.1	1.1	2.3	1.1	1.1	0.0	0.0
82.5°	0.0	0.0	1.1	1.1	2.3	1.1	1.1	0.0	0.0
85°	0.0	0.0	1.1	1.1	2.3	1.1	1.1	0.0	0.0
87.5°	0.0	0.0	1.1	1.1	2.3	1.1	1.1	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)