

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: P130261

Luminaire Tested: **HL612ICAT - HLM6940 - HL6WFL - 70PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130261
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33491)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6940 - HL6WFL - 70PS
Description: HALO ALLSLOPE 6" 21W, Albalite Glass Lens, White Polymer Trim Ring
"Dead Front", Wet Location - Showerlight using 55 Degree Optic at a 6-12
Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 945.1 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.05 / 1.23
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

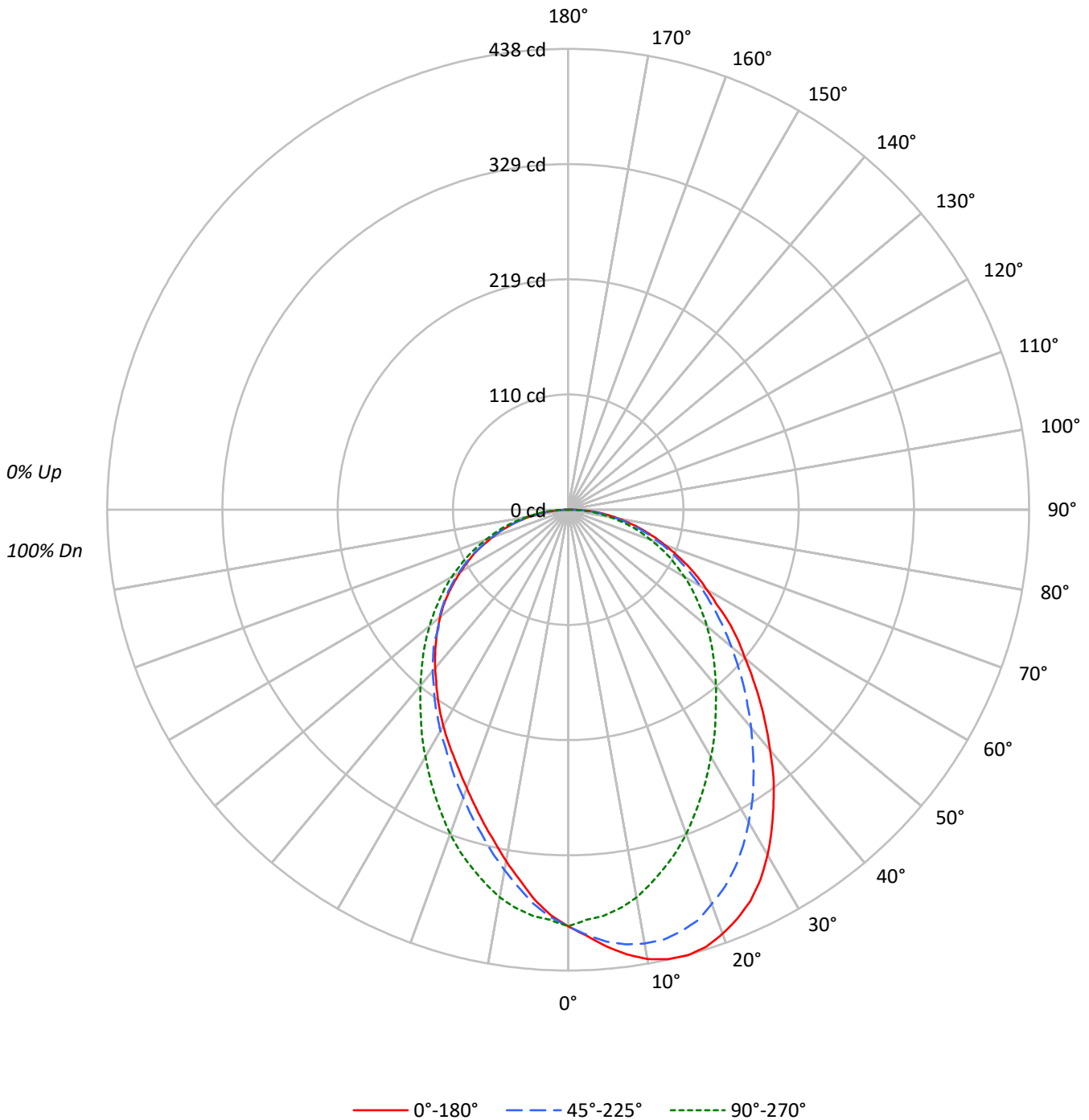
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	91	80	72	66	88	78	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	31	42	35	30	41	35	30	28
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	23632	23632	23632
5°	24401	22685	21748
10°	25111	21666	19645
15°	25297	20335	17826
20°	24848	18992	16310
25°	24032	17557	15119
30°	22642	16206	14174
35°	20901	14979	13295
40°	19025	13909	12526
45°	17207	12985	11851
50°	15460	12131	11200
55°	14047	11263	10479
60°	12435	10432	9655
65°	11219	9519	8844
70°	9815	8393	7717
75°	8430	7226	6566
80°	6732	5567	4922
85°	4495	3529	2731



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	3.9
10°-20°	102.5	10.8
20°-30°	146.3	15.5
30°-40°	164.0	17.3
40°-50°	159.4	16.9
50°-60°	139.3	14.7
60°-70°	107.2	11.3
70°-80°	66.8	7.1
80°-90°	22.6	2.4
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°	285.8	30.2
0°-40°	449.8	47.6
0°-60°	748.5	79.2
0°-90°	945.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	945.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	396	396	396	396	396	
5°	417	412	387	376	371	40
15°	438	415	352	318	309	123
25°	410	375	300	266	258	188
35°	340	307	244	221	216	213
45°	258	235	195	180	178	199
55°	186	172	149	141	139	166
65°	125	118	106	99	98	123
75°	73	70	62	57	57	77
85°	26	24	21	17	16	29
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°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	405.4	402.6	404.5	399.7	390.3	385.6	387.4	387.4	385.6
5°	416.7	413.0	412.0	402.6	387.4	377.0	376.1	372.3	371.4
7.5°	426.2	421.5	416.7	401.6	381.8	366.7	361.9	356.3	354.4
10°	433.7	427.1	418.6	398.8	374.2	355.3	347.8	341.1	339.3
12.5°	437.5	430.0	418.6	393.1	363.8	343.0	333.6	325.1	323.2
15°	438.5	430.0	414.8	385.6	352.5	329.8	318.5	310.0	309.0
17.5°	435.6	426.2	409.2	375.2	341.1	316.6	305.2	297.7	294.8
20°	429.0	418.6	398.8	362.9	327.9	302.4	291.1	283.5	281.6
22.5°	420.5	410.1	388.4	350.6	313.7	288.2	278.8	272.2	269.3
25°	410.1	398.8	375.2	336.4	299.6	275.9	265.5	258.9	258.0
27.5°	395.9	383.7	360.0	320.4	285.4	262.7	253.3	248.5	247.6
30°	378.9	367.6	343.0	304.3	271.2	250.4	242.9	238.1	237.2
32.5°	360.0	349.6	326.0	289.2	258.0	239.1	231.5	227.7	226.8
35°	340.2	329.8	307.1	272.2	243.8	226.8	221.1	217.3	216.4
37.5°	320.4	310.0	288.2	256.1	230.6	215.5	209.8	207.0	206.0
40°	298.6	290.1	270.3	241.0	218.3	204.1	200.3	196.6	196.6
42.5°	277.8	270.3	252.3	225.9	206.0	194.7	189.9	187.1	187.1
45°	258.0	251.4	235.3	212.6	194.7	184.3	180.5	177.7	177.7
47.5°	238.1	232.5	218.3	197.5	183.3	172.9	167.3	167.3	168.2
50°	219.2	214.5	202.2	184.3	172.0	163.5	159.7	157.8	158.8
52.5°	203.2	197.5	187.1	172.0	160.6	153.1	150.3	148.4	149.3
55°	186.2	181.4	172.0	159.7	149.3	142.7	140.8	135.1	138.9
57.5°	167.3	165.4	157.8	147.4	138.9	132.3	130.4	128.5	128.5
60°	152.1	150.3	144.6	135.1	127.6	121.9	120.0	118.1	118.1
62.5°	138.9	136.1	131.4	122.8	116.2	111.5	109.6	107.7	107.7
65°	124.7	121.9	118.1	111.5	105.8	101.1	99.2	97.3	98.3
67.5°	110.6	108.7	105.8	99.2	94.5	90.7	87.9	86.9	86.9
70°	97.3	96.4	93.6	87.9	83.2	80.3	77.5	76.5	76.5
72.5°	85.0	84.1	81.3	76.5	72.8	69.9	67.1	66.1	67.1
75°	72.8	71.8	69.9	65.2	62.4	59.5	56.7	55.8	56.7
77.5°	60.5	60.5	57.6	54.8	51.0	49.1	46.3	45.4	46.3
80°	49.1	49.1	46.3	43.5	40.6	37.8	35.9	35.9	35.9
82.5°	37.8	35.9	35.0	32.1	30.2	28.3	26.5	25.5	25.5
85°	26.5	26.5	23.6	21.7	20.8	18.0	17.0	16.1	16.1
87.5°	16.1	16.1	14.2	12.3	11.3	8.5	6.6	7.6	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)