Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: 267P148

Luminaire Tested: **H278ICAT- 30CAT**

Issue Date: 3/3/2020

Report Generated By E9970913 / USPTCWHP6095502

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Test Information

Test Method:	LM-41-14
Report Number:	267P148
Test Lab:	METALUX RESEARCH LABS
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	HALO
Catalog Number:	H278ICAT- 30CAT
Description:	HALO RECESSED WITH WHITE TRIM AND CLEAR SPECULAR REFLECTOR IN H27 HOUSING.
Light Source:	ONE COMPACT FLUORESCENT ECO TWIST LAMP CF28T/827 28 WATTS
Ballast/Driver:	-

Summary

Lumens per Lamp:	1675 (1 lamp)
Luminaire Lumens:	1230.5 lumens
Efficiency:	73.5%
Efficacy:	43.9 lumens/watt
Spacing Criteria (0/90/45):	1.73 / 1.74 / 1.59
Luminous Opening:	Circular (Dia: 0.46' x H: 0')
CIE Type:	Direct

Input Watts (W):	28
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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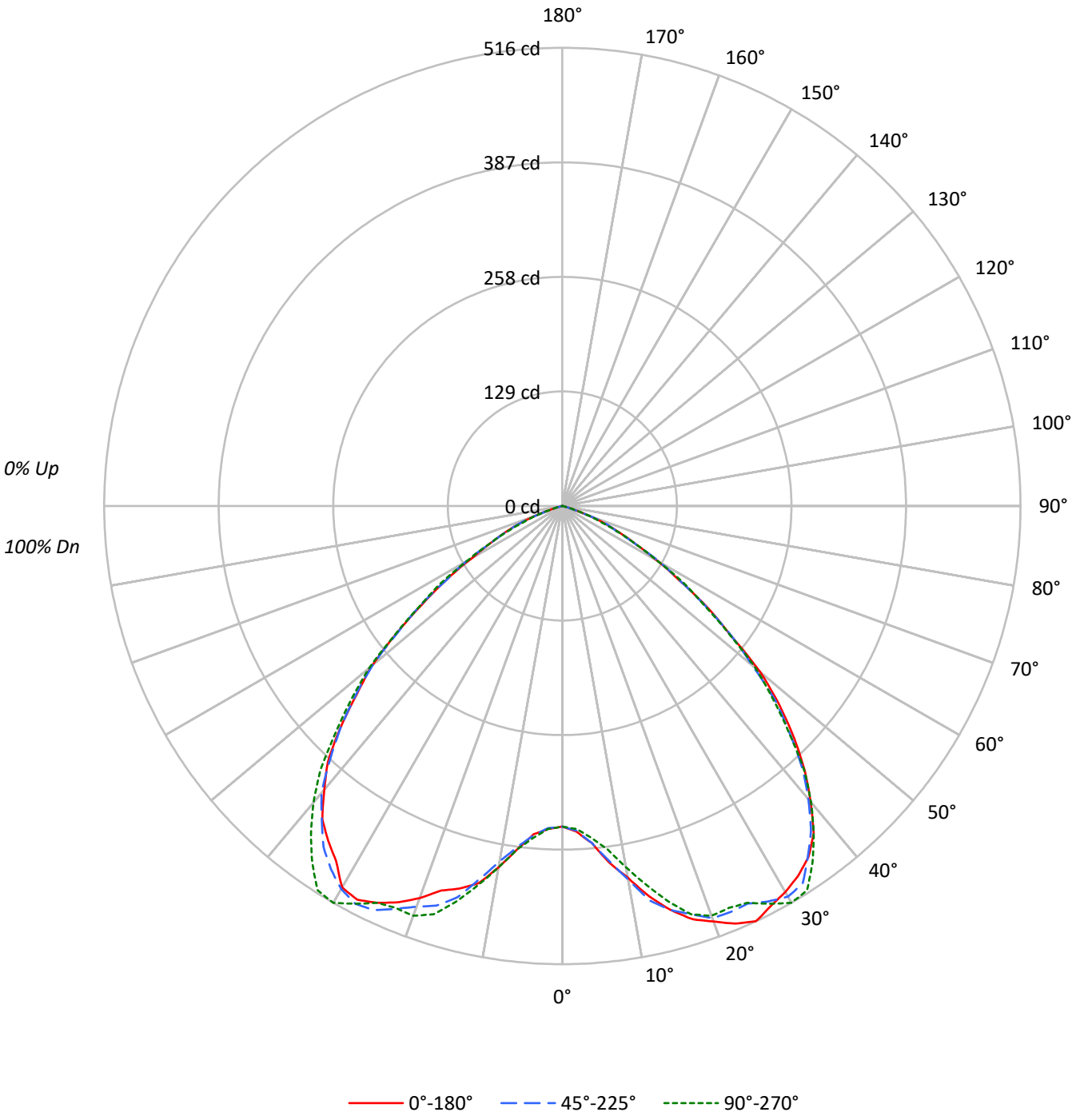
Luminous Intensity Polar Plot



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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	0
RCR																		
0	87	87	87	87	85	85	85	85	82	82	82	78	78	78	75	75	75	73
1	82	79	76	74	80	77	75	73	74	72	71	71	70	69	69	68	67	65
2	75	70	66	63	74	69	65	62	67	63	61	64	62	59	62	60	58	57
3	70	63	58	54	68	62	57	53	60	56	52	58	54	51	56	53	51	49
4	64	56	51	46	63	55	50	46	54	49	45	52	48	45	51	47	44	43
5	59	51	45	40	58	50	44	40	48	44	40	47	43	39	46	42	39	38
6	55	46	40	35	53	45	39	35	44	39	35	43	38	35	42	38	34	33
7	51	42	36	31	50	41	35	31	40	35	31	39	34	31	38	34	31	29
8	47	38	32	28	46	37	32	28	37	31	28	36	31	28	35	31	27	26
9	44	35	29	25	43	34	29	25	34	29	25	33	28	25	32	28	25	23
10	41	32	26	23	40	32	26	23	31	26	23	30	26	23	30	25	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	23552	23552	23552
5°	24952	24559	24297
10°	28155	27360	27360
15°	31812	31137	30124
20°	34575	34089	32631
25°	37144	35489	35489
30°	37817	38872	37365
35°	38468	39105	36636
40°	37047	37132	35514
45°	34045	33307	32662
50°	29535	28825	28419
55°	22749	22180	21839
60°	16180	16180	15397
65°	10960	10806	11269
70°	6104	6104	6295
75°	1260	1260	1260
80°	0	0	0
85°	0	0	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	37.2	3.0	2.2
10°-20°	130.8	10.6	7.8
20°-30°	230.7	18.7	13.8
30°-40°	297.2	24.2	17.7
40°-50°	276.0	22.4	16.5
50°-60°	176.6	14.4	10.5
60°-70°	72.3	5.9	4.3
70°-80°	9.7	0.8	0.6
80°-90°	0.0	0.0	0.0
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	398.7	32.4	23.8
0°-40°	695.9	56.6	41.5
0°-60°	1148.5	93.3	68.6
0°-90°	1230.5	100.0	73.5
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1230.5	100.0	73.5

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	361	361	361	361	361	
5°	381	381	375	372	371	38
15°	471	471	461	456	446	134
25°	516	494	493	502	493	235
35°	483	482	491	469	460	299
45°	369	362	361	353	354	282
55°	200	197	195	196	192	179
65°	71	67	70	72	73	73
75°	5	5	5	5	5	10
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°	361	361	361	*361*	361	361	361	361	361
2.5°	367	366	366	*365*	364	363	363	363	364
5°	381	382	381	*377*	375	373	372	370	371
7.5°	405	405	403	*397*	390	387	387	388	390
10°	425	428	427	*420*	413	408	406	410	413
12.5°	450	452	455	*446*	437	432	430	431	435
15°	471	470	471	*469*	461	457	456	451	446
17.5°	488	485	482	*491*	482	475	472	462	454
20°	498	498	494	*492*	491	480	480	475	470
22.5°	509	505	495	*486*	490	491	491	488	483
25°	516	506	494	*490*	493	499	502	497	493
27.5°	508	508	502	*505*	505	502	505	504	500
30°	*502*	*504*	*508*	*518*	*516*	*503*	*498*	*496*	*496*
32.5°	494	497	504	*514*	513	499	485	476	474
35°	483	484	482	*493*	491	476	469	462	460
37.5°	465	462	460	*465*	465	455	445	442	444
40°	435	437	431	*436*	436	428	422	418	417
42.5°	404	403	400	*405*	403	394	387	387	391
45°	369	370	362	*365*	361	354	353	353	354
47.5°	331	330	326	*320*	322	319	316	316	314
50°	291	286	279	*282*	284	278	279	278	280
52.5°	238	240	240	*238*	237	235	233	233	235
55°	200	198	197	*196*	195	194	196	194	192
57.5°	157	159	158	*161*	163	158	154	155	155
60°	124	126	127	*125*	124	128	126	120	118
62.5°	94	94	93	*96*	94	95	92	92	92
65°	71	71	67	*68*	70	68	72	72	73
67.5°	52	53	55	*48*	46	52	54	53	53
70°	32	33	32	*32*	32	32	32	32	33
72.5°	14	14	13	*14*	14	13	14	15	15
75°	5	5	5	*5*	5	5	5	5	5
77.5°	2	2	2	*2*	2	2	2	2	2
80°	0	0	0	*0*	0	0	0	0	0
82.5°	0	0	0	*0*	0	0	0	0	0
85°	0	0	0	*0*	0	0	0	0	0
87.5°	0	0	0	*0*	0	0	0	0	0
90°	0	0	0	*0*	0	0	0	0	0

(END OF REPORT)