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: METALUX

Report Number: 236p247

Luminaire Tested: **HBL-632-W-UNV-EB82-U**

Issue Date: 3/3/2020

Report Generated By E9911574 / USPTCWHP6081592

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Test Information

Test Method:	LM-41-14
Report Number:	236p247
Test Lab:	METALUX RESEARCH LABS
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	METALUX
Catalog Number:	HBL-632-W-UNV-EB82-U
Description:	OPEN HIGH BAY LUMINAIRE WITH WHITE REFLECTOR, WIDE DISTRIBUTION, NO UPLIGHT
Light Source:	SIX 32 WATT T8 - 3100 LUMENS EA
Ballast/Driver:	-

Summary

Lumens per Lamp:	3100 (6 lamps)
Luminaire Lumens:	17245.2 lumens
Efficiency:	92.7%
Efficacy:	77.3 lumens/watt
Spacing Criteria (0/90/45):	1.3 / 1.38 / 1.47
Luminous Opening:	Rectangular (W 1.62' x L: 4' x H: 0')
CIE Type:	Direct

Input Watts (W):	223
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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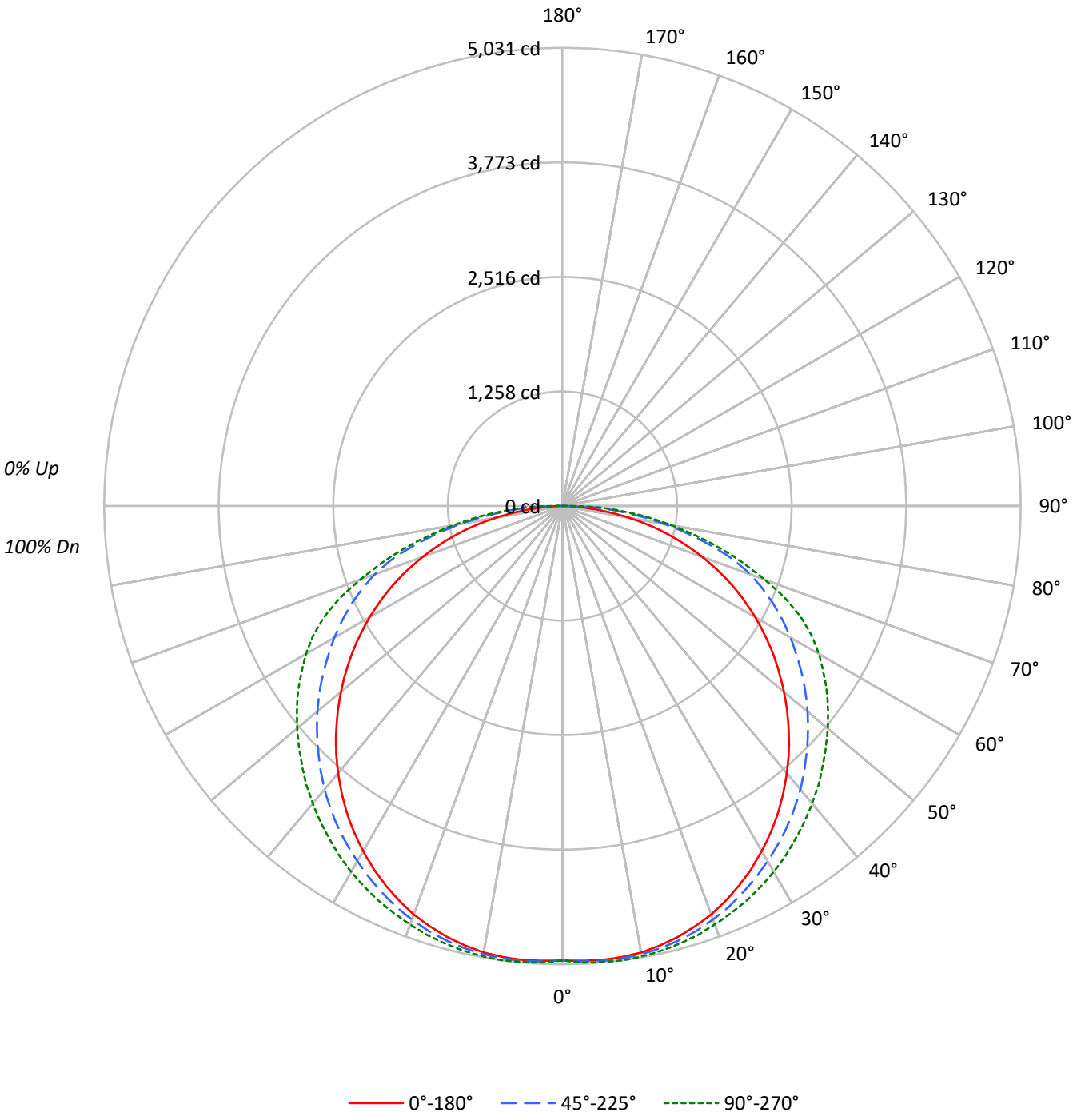
Luminous Intensity Polar Plot



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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	110	110	110	110	108	108	108	108	103	103	103	99	99	99	95	95	95	93
1	100	95	90	86	97	92	88	85	88	85	82	85	82	79	81	79	77	75
2	90	81	74	68	87	79	73	68	76	71	66	73	68	64	70	66	63	61
3	81	71	62	56	79	69	62	55	66	60	54	64	58	53	61	56	52	50
4	74	62	53	47	72	61	53	46	58	51	46	56	50	45	54	49	44	42
5	68	55	46	40	66	54	46	40	52	45	39	50	44	39	48	43	38	36
6	62	49	41	34	61	49	40	34	47	39	34	45	39	34	44	38	33	31
7	58	45	36	30	56	44	36	30	42	35	30	41	34	30	40	34	29	27
8	54	41	32	27	52	40	32	27	39	32	26	38	31	26	36	31	26	24
9	50	37	29	24	49	37	29	24	36	29	24	35	28	24	34	28	23	22
10	47	34	27	22	46	34	26	22	33	26	21	32	26	21	31	25	21	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8260	8260	8260
5°	8315	8332	8355
10°	8369	8403	8443
15°	8394	8464	8527
20°	8411	8513	8616
25°	8394	8559	8734
30°	8366	8610	8869
35°	8333	8691	9018
40°	8279	8781	9215
45°	8230	8883	9461
50°	8180	9045	9792
55°	8142	9262	10223
60°	8101	9572	10767
65°	8044	10023	11308
70°	7907	10623	11441
75°	7665	10883	11472
80°	7009	10814	11539
85°	5130	11153	12654

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	477.8	2.8	2.6
10°-20°	1393.8	8.1	7.5
20°-30°	2160.2	12.5	11.6
30°-40°	2687.7	15.6	14.5
40°-50°	2922.1	16.9	15.7
50°-60°	2856.1	16.6	15.4
60°-70°	2474.1	14.3	13.3
70°-80°	1674.4	9.7	9.0
80°-90°	599.0	3.5	3.2
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°	4031.8	23.4	21.7
0°-40°	6719.5	39.0	36.1
0°-60°	12497.7	72.5	67.2
0°-90°	17245.2	100.0	92.7
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°	17245.2	100.0	92.7

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4988	4988	4988	4988	4988	
5°	5002	5004	5012	5015	5026	477
15°	4896	4907	4937	4955	4974	1383
25°	4594	4618	4684	4741	4780	2118
35°	4122	4166	4299	4416	4461	2578
45°	3514	3590	3793	3977	4040	2711
55°	2820	2938	3208	3454	3541	2520
65°	2053	2194	2558	2821	2886	2027
75°	1198	1402	1701	1771	1793	1258
85°	270	491	587	647	666	332
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4988	4988	4988	4988	*4988*
2.5°	4997	5000	5005	5007	*5017*
5°	5002	5004	5012	5015	*5026*
7.5°	*4994*	*4998*	*5008*	*5015*	*5031*
10°	4977	4983	4997	5007	*5021*
12.5°	4942	4946	4972	4986	*5002*
15°	4896	4907	4937	4955	*4974*
17.5°	4839	4851	4891	4917	*4938*
20°	4773	4786	4831	4866	*4889*
22.5°	4688	4708	4766	4805	*4837*
25°	4594	4618	4684	4741	*4780*
27.5°	4490	4518	4597	4673	*4712*
30°	4375	4410	4503	4595	*4638*
32.5°	4253	4294	4404	4510	*4555*
35°	4122	4166	4299	4416	*4461*
37.5°	3981	4030	4185	4312	*4367*
40°	3830	3890	4062	4209	*4263*
42.5°	3677	3741	3932	4094	*4159*
45°	3514	3590	3793	3977	*4040*
47.5°	3346	3432	3655	3851	*3921*
50°	3175	3270	3511	3720	*3801*
52.5°	2998	3106	3362	3592	*3674*
55°	2820	2938	3208	3454	*3541*
57.5°	2634	2757	3047	3307	*3397*
60°	2446	2571	2890	3159	*3251*
62.5°	2251	2387	2727	3006	*3085*
65°	2053	2194	2558	2821	*2886*
67.5°	1844	1996	2380	2610	*2644*
70°	1633	1797	2194	2340	*2363*
72.5°	1416	1596	1973	2058	*2077*
75°	1198	1402	1701	1771	*1793*
77.5°	970	1203	1417	1473	*1497*
80°	735	1004	1134	1188	*1210*
82.5°	500	753	850	913	*936*
85°	270	491	587	647	*666*
87.5°	82	249	339	392	*414*
90°	0	0	0	0	*0*

(END OF REPORT)