

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: METALUX

Report Number: P685563

Luminaire Tested: **4CZL-16-UNV-FL-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685563
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-16-UNV-FL-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 5000K
Light Source: (588) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

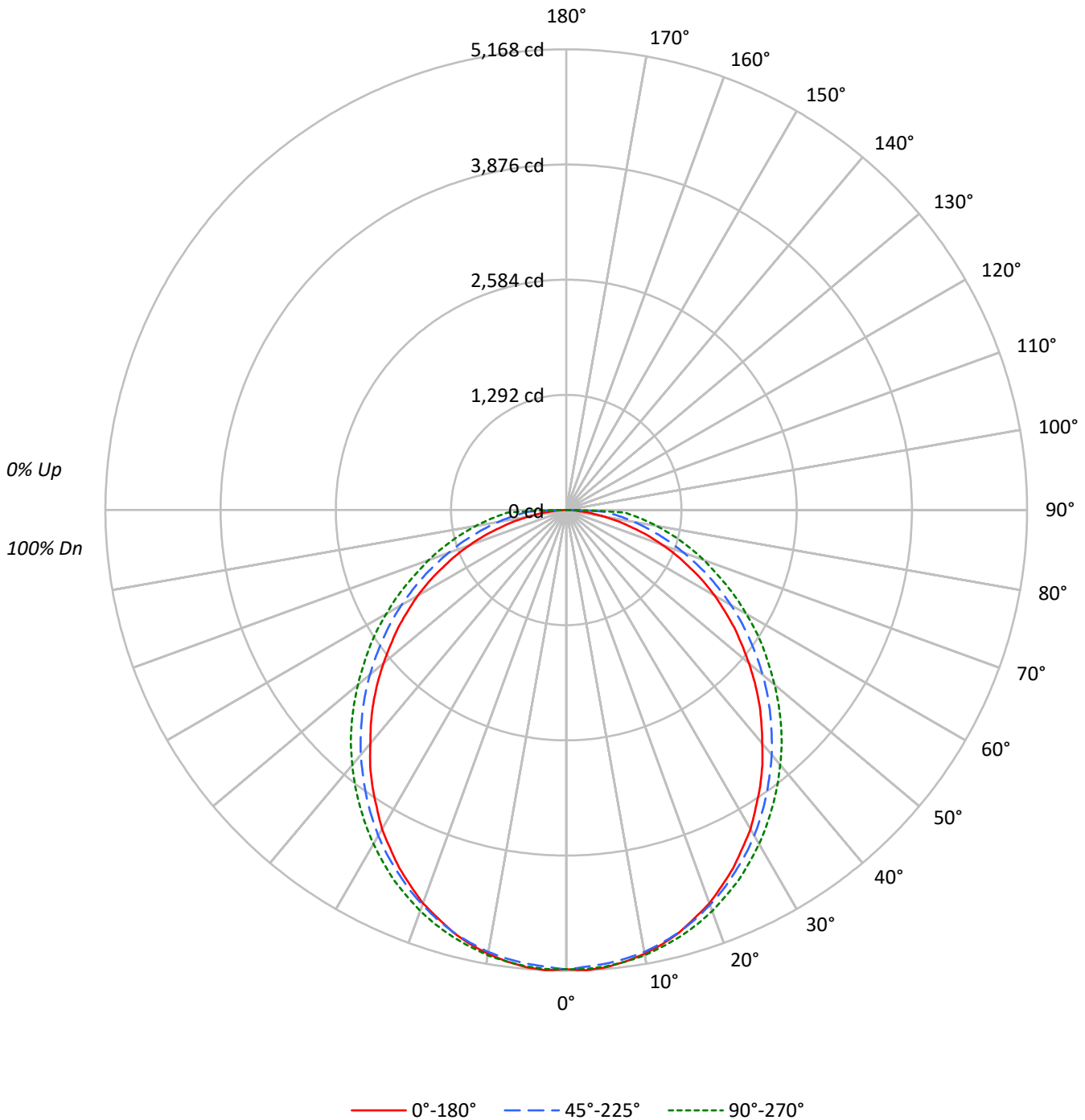
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14514.4 lumens
Efficiency: N/A
Efficacy: 140.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 4' x H: 0.08')
CIE Type: Direct

Input Watts (W): 103
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	84	84	84	82
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	70	70	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	59	59	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	51	51	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	44	44	44	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	39	39	39	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	46	39	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16639	16639	16639
5°	16657	16437	16511
10°	16517	16262	16345
15°	16304	16018	16123
20°	16014	15707	15871
25°	15632	15347	15584
30°	15225	14986	15247
35°	14723	14547	14885
40°	14162	14104	14516
45°	13684	13611	14134
50°	13108	13103	13686
55°	12573	12547	13283
60°	11984	11990	12821
65°	11204	11391	12417
70°	10295	10725	12173
75°	8958	10146	12031
80°	7233	9729	12192
85°	4632	9803	13209



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	487.4	3.4
10°-20°	1386.9	9.6
20°-30°	2071.4	14.3
30°-40°	2449.9	16.9
40°-50°	2496.3	17.2
50°-60°	2236.8	15.4
60°-70°	1742.2	12.0
70°-80°	1128.0	7.8
80°-90°	515.4	3.6
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°	3945.8	27.2
0°-40°	6395.7	44.1
0°-60°	11128.8	76.7
0°-90°	14514.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14514.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5153	5153	5153	5153	5153	
5°	5148	5139	5109	5139	5138	488
15°	4904	4904	4901	4947	4952	1381
25°	4430	4446	4479	4558	4578	2038
35°	3789	3826	3911	4017	4040	2368
45°	3059	3114	3235	3358	3404	2357
55°	2300	2364	2500	2644	2696	2053
65°	1532	1598	1764	1912	1974	1521
75°	774	873	1072	1251	1324	830
85°	155	299	523	712	764	198
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5152.8	5152.8	5152.8	5152.8	5152.8
2.5°	5167.5	5158.7	5127.3	5154.8	5153.8
5°	5147.9	5139.1	5108.7	5139.1	5138.1
7.5°	5107.8	5104.8	5077.4	5110.7	5107.8
10°	5055.8	5051.9	5034.3	5067.6	5072.5
12.5°	4987.3	4985.3	4971.6	5010.8	5013.7
15°	4904.0	4904.0	4901.1	4947.1	4952.0
17.5°	4797.3	4811.0	4813.9	4863.9	4874.6
20°	4695.4	4699.3	4713.0	4773.8	4786.5
22.5°	4561.2	4577.9	4605.3	4671.9	4682.7
25°	4430.0	4445.7	4479.0	4558.3	4577.9
27.5°	4277.2	4307.6	4353.6	4432.9	4452.5
30°	4132.2	4157.7	4217.4	4305.6	4325.2
32.5°	3955.0	3998.1	4066.6	4159.7	4186.1
35°	3789.4	3825.7	3910.9	4016.7	4040.2
37.5°	3612.2	3655.3	3745.4	3858.0	3890.3
40°	3418.2	3480.9	3585.7	3698.3	3732.6
42.5°	3241.0	3298.7	3409.4	3536.7	3575.9
45°	3058.8	3113.6	3235.1	3358.5	3404.5
47.5°	2868.8	2925.6	3057.8	3189.0	3230.2
50°	2673.9	2741.4	2873.7	3011.8	3049.0
52.5°	2479.9	2547.5	2687.6	2825.7	2867.8
55°	2299.7	2364.4	2500.5	2644.5	2696.4
57.5°	2103.8	2172.4	2322.2	2461.3	2517.1
60°	1922.6	1972.6	2131.3	2275.2	2329.1
62.5°	1735.6	1789.4	1944.2	2092.1	2155.7
65°	1531.8	1598.4	1764.0	1911.9	1973.6
67.5°	1345.7	1409.4	1579.8	1746.3	1796.3
70°	1152.8	1226.3	1402.6	1573.0	1643.5
72.5°	968.7	1045.1	1239.0	1408.4	1479.9
75°	773.8	872.7	1072.5	1250.7	1324.2
77.5°	613.1	711.1	915.8	1101.9	1172.4
80°	434.9	555.3	776.7	964.7	1027.4
82.5°	289.9	412.3	644.5	827.6	895.2
85°	154.8	298.7	523.0	712.0	764.0
87.5°	67.6	208.6	424.1	592.6	654.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)