

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: P475469

Luminaire Tested: **14CZ2-29-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475469
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-HRP-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

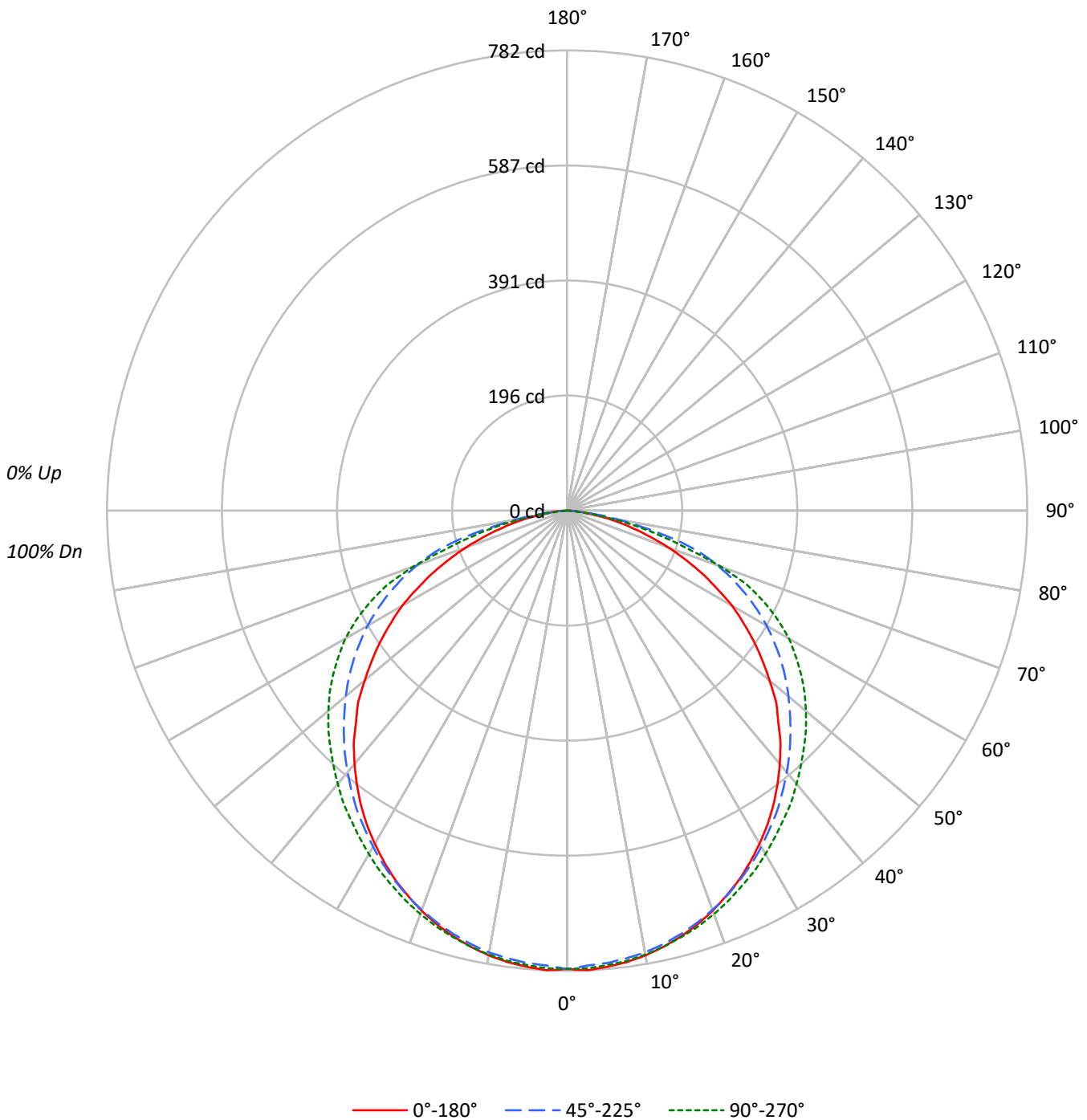
Lumens per Lamp: N/A
Luminaire Lumens: 2327.4 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.4
Input Voltage (V): 120
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	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2096	2096	2096
5°	2102	2085	2095
10°	2097	2084	2093
15°	2086	2076	2090
20°	2072	2068	2089
25°	2055	2059	2089
30°	2032	2050	2095
35°	2007	2044	2106
40°	1974	2040	2131
45°	1931	2043	2166
50°	1880	2055	2217
55°	1817	2080	2276
60°	1744	2108	2344
65°	1611	2128	2357
70°	1436	2137	2183
75°	1203	1980	1696
80°	913	1392	1114
85°	642	488	154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.7	3.2
10°-20°	211.3	9.1
20°-30°	321.1	13.8
30°-40°	391.0	16.8
40°-50°	415.3	17.8
50°-60°	392.9	16.9
60°-70°	318.3	13.7
70°-80°	174.5	7.5
80°-90°	29.2	1.3
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°	606.1	26.0
0°-40°	997.1	42.8
0°-60°	1805.4	77.6
0°-90°	2327.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2327.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	779	779	779	779	779	
5°	778	777	772	777	775	74
15°	749	747	745	751	750	211
25°	692	692	694	703	704	319
35°	611	613	622	637	641	382
45°	507	515	537	561	569	392
55°	387	405	443	476	485	346
65°	253	282	334	364	370	250
75°	116	160	190	168	163	124
85°	21	27	16	8	5	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	779.0	779.0	779.0	779.0	779.0
2.5°	781.9	779.0	774.0	779.0	778.3
5°	778.3	776.8	771.8	776.8	775.4
7.5°	774.0	772.5	767.5	773.2	771.8
10°	767.5	766.0	762.5	767.5	766.0
12.5°	758.9	758.1	754.5	760.3	758.9
15°	748.8	747.4	745.2	751.0	750.2
17.5°	737.3	735.9	734.4	741.6	740.9
20°	723.6	722.9	722.2	730.1	729.4
22.5°	707.8	707.8	708.6	717.2	717.2
25°	692.0	692.0	693.5	702.8	703.5
27.5°	673.3	674.8	677.7	687.7	689.9
30°	653.9	655.4	659.7	671.2	674.1
32.5°	633.1	635.3	641.0	654.7	657.5
35°	610.8	613.0	622.3	637.4	641.0
37.5°	587.1	590.7	601.5	618.7	625.2
40°	562.0	567.7	580.6	599.3	606.5
42.5°	536.8	541.8	559.1	580.6	587.8
45°	507.3	515.2	536.8	561.2	569.1
47.5°	481.5	488.7	513.8	541.1	550.5
50°	449.1	459.9	490.8	521.0	529.6
52.5°	418.2	432.6	467.8	498.7	508.8
55°	387.3	404.6	443.4	475.7	485.1
57.5°	355.0	373.7	417.5	450.6	460.6
60°	324.1	344.2	391.6	425.4	435.5
62.5°	287.4	312.6	363.6	396.0	404.6
65°	253.0	281.7	334.2	363.6	370.1
67.5°	217.7	251.5	304.0	329.8	332.0
70°	182.5	220.6	271.6	287.4	277.4
72.5°	148.0	190.4	237.1	224.2	212.7
75°	115.7	159.5	190.4	168.2	163.1
77.5°	85.5	130.8	132.9	122.2	118.6
80°	58.9	101.3	89.8	77.6	71.9
82.5°	38.1	62.5	49.6	36.6	33.1
85°	20.8	27.3	15.8	7.9	5.0
87.5°	7.9	5.0	2.2	2.2	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)