

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: P475451

Luminaire Tested: **14CZ2-29-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475451
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-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

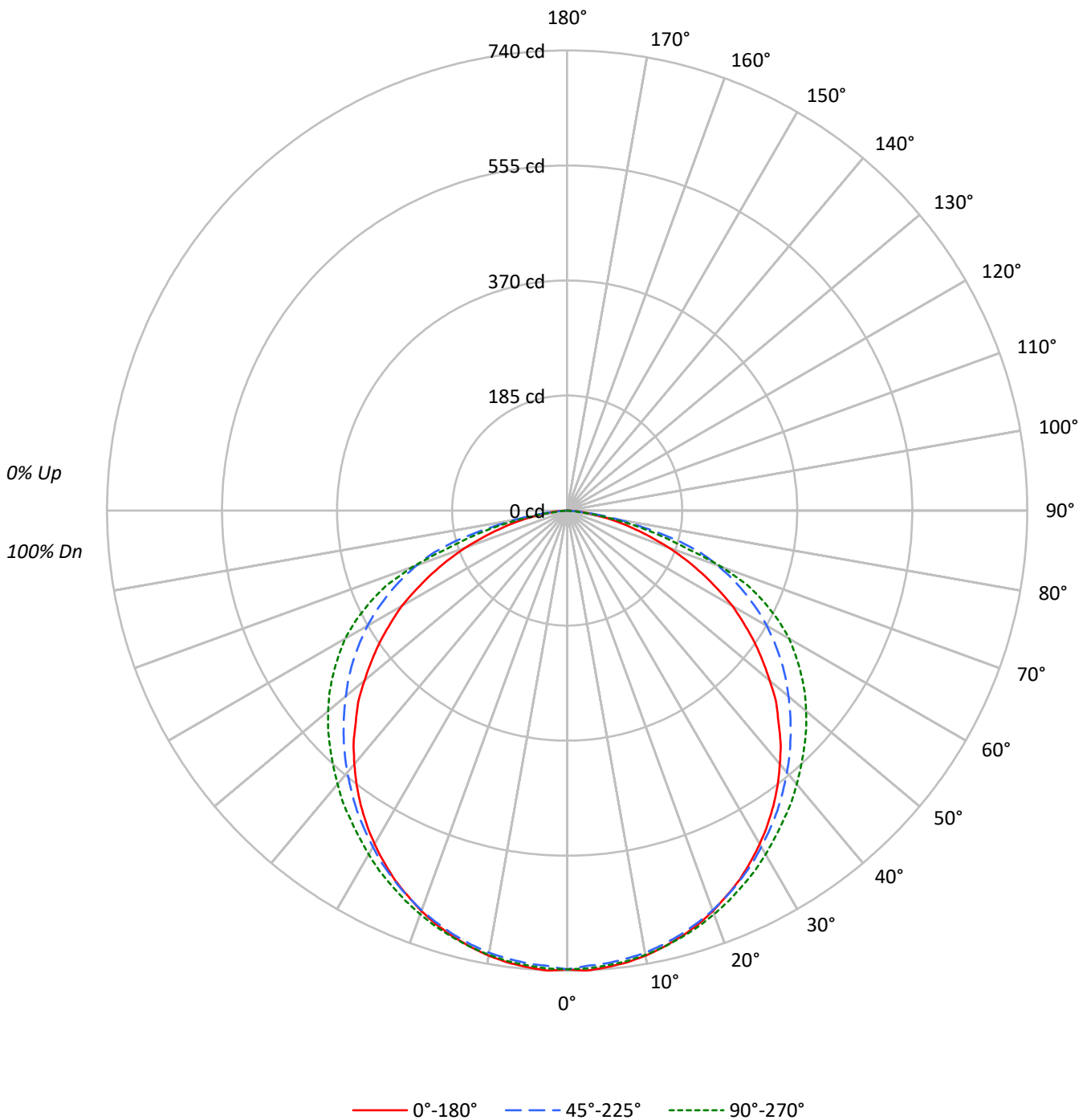
Lumens per Lamp: N/A
Luminaire Lumens: 2204.1 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	1985	1985	1985
5°	1991	1974	1984
10°	1986	1973	1982
15°	1975	1966	1979
20°	1962	1958	1978
25°	1946	1950	1978
30°	1924	1941	1983
35°	1900	1936	1994
40°	1870	1932	2018
45°	1829	1935	2051
50°	1780	1946	2100
55°	1721	1970	2155
60°	1652	1996	2220
65°	1525	2015	2232
70°	1360	2024	2067
75°	1140	1875	1606
80°	865	1319	1055
85°	608	463	148



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	3.2
10°-20°	200.1	9.1
20°-30°	304.1	13.8
30°-40°	370.3	16.8
40°-50°	393.4	17.8
50°-60°	372.1	16.9
60°-70°	301.5	13.7
70°-80°	165.3	7.5
80°-90°	27.6	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°	574.0	26.0
0°-40°	944.3	42.8
0°-60°	1709.7	77.6
0°-90°	2204.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2204.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	738	738	738	738	738	
5°	737	736	731	736	734	70
15°	709	708	706	711	710	200
25°	655	655	657	666	666	302
35°	578	580	589	604	607	362
45°	480	488	508	532	539	371
55°	367	383	420	450	459	328
65°	240	267	316	344	350	237
75°	110	151	180	159	154	117
85°	20	26	15	8	5	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	737.7	737.7	737.7	737.7	737.7
2.5°	740.4	737.7	732.9	737.7	737.0
5°	737.0	735.7	730.9	735.7	734.3
7.5°	732.9	731.6	726.8	732.3	730.9
10°	726.8	725.5	722.0	726.8	725.5
12.5°	718.6	718.0	714.6	720.0	718.6
15°	709.1	707.8	705.7	711.2	710.5
17.5°	698.2	696.9	695.5	702.3	701.6
20°	685.3	684.6	683.9	691.4	690.7
22.5°	670.3	670.3	671.0	679.2	679.2
25°	655.4	655.4	656.7	665.6	666.2
27.5°	637.7	639.0	641.7	651.3	653.3
30°	619.3	620.6	624.7	635.6	638.3
32.5°	599.6	601.6	607.0	620.0	622.7
35°	578.5	580.5	589.3	603.6	607.0
37.5°	556.0	559.4	569.6	585.9	592.1
40°	532.2	537.6	549.9	567.6	574.4
42.5°	508.4	513.1	529.5	549.9	556.7
45°	480.5	487.9	508.4	531.5	539.0
47.5°	456.0	462.8	486.6	512.4	521.3
50°	425.3	435.5	464.8	493.4	501.6
52.5°	396.1	409.7	443.0	472.3	481.8
55°	366.8	383.1	419.9	450.5	459.4
57.5°	336.2	353.9	395.4	426.7	436.2
60°	306.9	326.0	370.9	402.9	412.4
62.5°	272.2	296.0	344.4	375.0	383.1
65°	239.5	266.8	316.4	344.4	350.5
67.5°	206.2	238.2	287.9	312.4	314.4
70°	172.9	208.9	257.2	272.2	262.7
72.5°	140.2	180.3	224.6	212.3	201.4
75°	109.6	151.1	180.3	159.2	154.5
77.5°	81.0	123.9	125.9	115.7	112.3
80°	55.8	96.0	85.1	73.5	68.1
82.5°	36.1	59.2	47.0	34.7	31.3
85°	19.7	25.9	15.0	7.5	4.8
87.5°	7.5	4.8	2.0	2.0	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)