

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: P184159

Luminaire Tested: **24FR-30-HP-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184159
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27148)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24FR-30-HP-UNV-L830-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 3000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

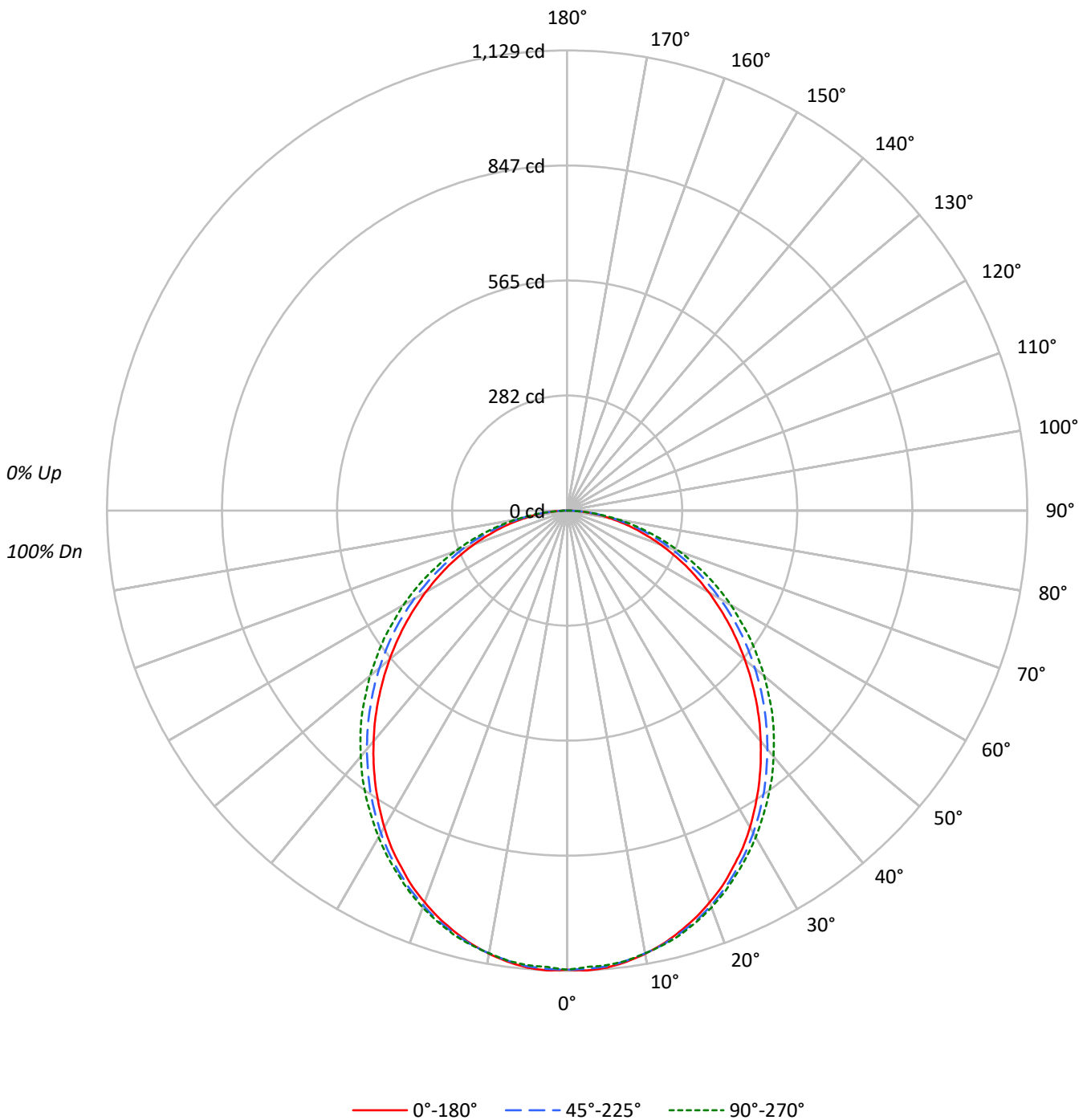
Lumens per Lamp: N/A
Luminaire Lumens: 2978.5 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 22.8
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	
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	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1516	1516	1516
5°	1520	1516	1512
10°	1509	1507	1507
15°	1489	1495	1500
20°	1464	1477	1484
25°	1432	1450	1461
30°	1394	1420	1438
35°	1348	1383	1412
40°	1298	1342	1383
45°	1245	1301	1356
50°	1191	1258	1321
55°	1137	1217	1287
60°	1079	1165	1249
65°	1023	1113	1206
70°	959	1062	1154
75°	888	1005	1085
80°	813	933	993
85°	735	795	795



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	3.6
10°-20°	302.2	10.1
20°-30°	448.6	15.1
30°-40°	524.9	17.6
40°-50°	526.9	17.7
50°-60°	461.5	15.5
60°-70°	346.4	11.6
70°-80°	203.6	6.8
80°-90°	58.0	1.9
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°	857.1	28.8
0°-40°	1382.1	46.4
0°-60°	2370.5	79.6
0°-90°	2978.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2978.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1126	1126	1126	1126	1126	
5°	1126	1118	1123	1121	1120	107
15°	1069	1065	1073	1076	1077	301
25°	964	964	977	980	984	444
35°	821	824	842	853	859	513
45°	654	662	684	702	713	505
55°	485	493	519	537	549	433
65°	321	330	350	368	379	318
75°	171	181	193	203	209	182
85°	48	50	52	52	52	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1126.5	1126.5	1126.5	1126.5	1126.5
2.5°	1129.4	1122.6	1125.5	1124.6	1120.7
5°	1125.5	1117.8	1122.6	1120.7	1119.7
7.5°	1116.8	1109.0	1113.9	1113.9	1113.9
10°	1104.2	1098.3	1103.2	1103.2	1103.2
12.5°	1088.6	1083.8	1090.6	1091.5	1091.5
15°	1069.2	1065.3	1073.1	1076.0	1077.0
17.5°	1047.8	1044.9	1054.6	1057.6	1057.6
20°	1022.6	1020.7	1031.3	1034.3	1036.2
22.5°	996.4	993.5	1006.1	1008.0	1011.9
25°	964.3	964.3	977.0	979.9	983.8
27.5°	933.3	932.3	946.8	951.7	955.6
30°	897.3	897.3	913.8	920.6	925.5
32.5°	859.4	862.4	877.9	886.6	892.5
35°	820.6	823.5	842.0	852.6	859.4
37.5°	779.8	784.7	803.1	816.7	825.5
40°	739.0	745.8	764.3	779.8	787.6
42.5°	697.3	703.1	724.5	741.9	750.7
45°	654.5	662.3	683.7	702.1	712.8
47.5°	611.8	621.5	642.9	663.3	671.0
50°	569.1	577.8	601.1	621.5	631.2
52.5°	526.4	535.1	559.4	578.8	588.5
55°	484.6	493.3	518.6	537.0	548.7
57.5°	441.9	451.6	475.9	495.3	504.0
60°	401.1	409.8	433.1	452.5	464.2
62.5°	360.3	370.0	390.4	410.8	421.5
65°	321.4	330.2	349.6	368.1	378.7
67.5°	281.6	292.3	308.8	327.3	335.0
70°	243.8	255.4	270.0	285.5	293.3
72.5°	206.9	217.5	231.1	243.8	250.6
75°	170.9	180.6	193.3	203.0	208.8
77.5°	136.9	147.6	156.4	165.1	168.0
80°	104.9	113.6	120.4	126.2	128.2
82.5°	75.7	81.6	84.5	89.3	90.3
85°	47.6	50.5	51.5	51.5	51.5
87.5°	20.4	21.4	19.4	15.5	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)