

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: P292621

Luminaire Tested: **22GR-LD5-24-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292621
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-24-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2042.0 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

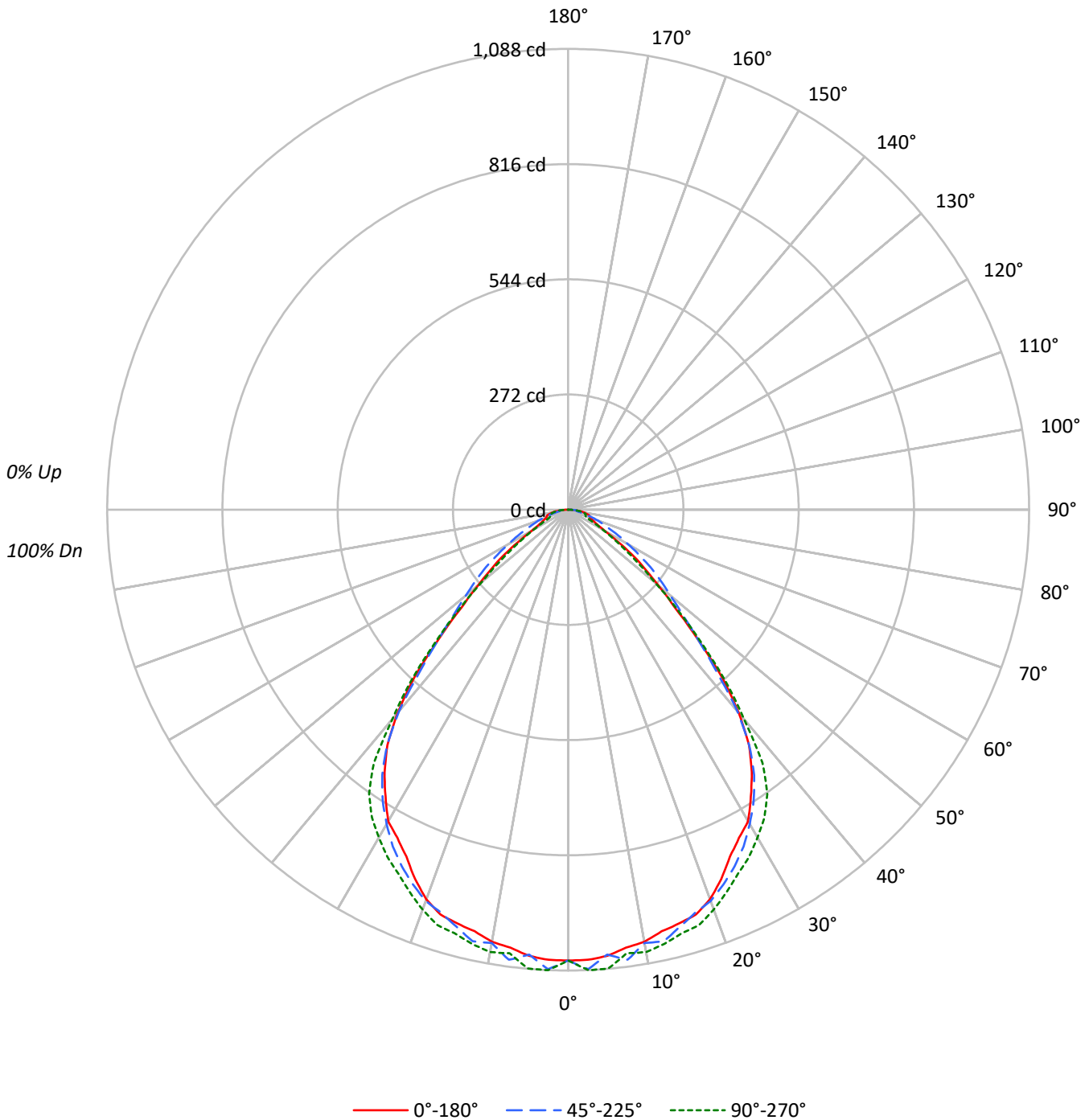
Input Watts (W): 18.507
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2864	2864	2864
5°	2857	2847	2937
10°	2830	2838	2898
15°	2817	2839	2885
20°	2802	2816	2877
25°	2683	2758	2816
30°	2639	2663	2776
35°	2482	2513	2691
40°	2199	2184	2270
45°	1643	1646	1692
50°	1156	1315	1120
55°	853	1110	765
60°	533	878	500
65°	435	695	349
70°	431	579	345
75°	535	425	445
80°	597	336	544
85°	593	624	608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.3	5.0
10°-20°	288.6	14.1
20°-30°	427.4	20.9
30°-40°	478.7	23.4
40°-50°	351.8	17.2
50°-60°	196.6	9.6
60°-70°	109.6	5.4
70°-80°	64.4	3.2
80°-90°	23.7	1.2
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°	817.3	40.0
0°-40°	1296.0	63.5
0°-60°	1844.4	90.3
0°-90°	2042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1058	1077	1054	1076	1087	100
15°	1011	1018	1019	1034	1035	286
25°	904	911	929	942	948	419
35°	755	756	765	800	819	468
45°	432	467	432	463	445	337
55°	182	221	237	236	163	162
65°	68	121	109	140	55	71
75°	52	73	41	82	43	52
85°	19	28	20	26	20	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.2	1064.2	1064.2	1064.2	1064.2
2.5°	1063.8	1073.4	1085.9	1087.3	1088.3
5°	1057.5	1077.2	1054.1	1075.8	1087.3
7.5°	1043.1	1055.1	1071.9	1050.3	1056.5
10°	1035.8	1038.7	1038.7	1065.7	1060.4
12.5°	1019.5	1038.7	1043.5	1038.3	1049.8
15°	1011.3	1017.6	1019.0	1034.4	1035.4
17.5°	1002.2	1000.7	997.4	1008.4	1028.1
20°	978.6	973.3	983.4	996.9	1004.6
22.5°	944.0	945.4	957.4	968.5	977.2
25°	903.5	910.8	929.0	942.0	948.3
27.5°	873.2	883.8	896.3	911.7	924.2
30°	849.2	848.2	856.9	879.0	893.4
32.5°	802.5	805.9	815.0	841.5	861.7
35°	755.4	755.8	765.0	799.6	819.3
37.5°	701.0	697.1	702.4	740.0	753.0
40°	625.9	626.9	621.6	648.1	646.1
42.5°	538.4	546.1	518.6	553.3	550.9
45°	431.6	466.7	432.5	463.3	444.6
47.5°	340.6	392.6	364.2	386.8	351.7
50°	276.2	329.6	314.2	324.3	267.5
52.5°	226.6	269.9	274.7	277.1	208.8
55°	181.9	221.3	236.7	236.2	163.1
57.5°	134.2	179.9	197.7	205.0	123.6
60°	99.1	149.6	163.1	179.0	92.9
62.5°	79.9	131.3	134.7	156.8	70.7
65°	68.3	121.2	109.2	140.0	54.8
67.5°	60.6	113.1	89.0	125.1	46.7
70°	54.8	100.6	73.6	112.1	43.8
72.5°	53.4	85.6	56.8	100.1	43.3
75°	51.5	72.6	40.9	82.3	42.8
77.5°	44.3	62.1	29.3	63.5	39.9
80°	38.5	49.6	21.7	47.6	35.1
82.5°	29.8	37.5	19.2	36.1	28.4
85°	19.2	28.4	20.2	26.0	19.7
87.5°	9.1	15.9	14.4	14.0	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)