

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: P292519

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292519
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-LD5-20-A19/156-UNV-L83050-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2150.0 lumens
Efficiency: N/A
Efficacy: 136.0 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

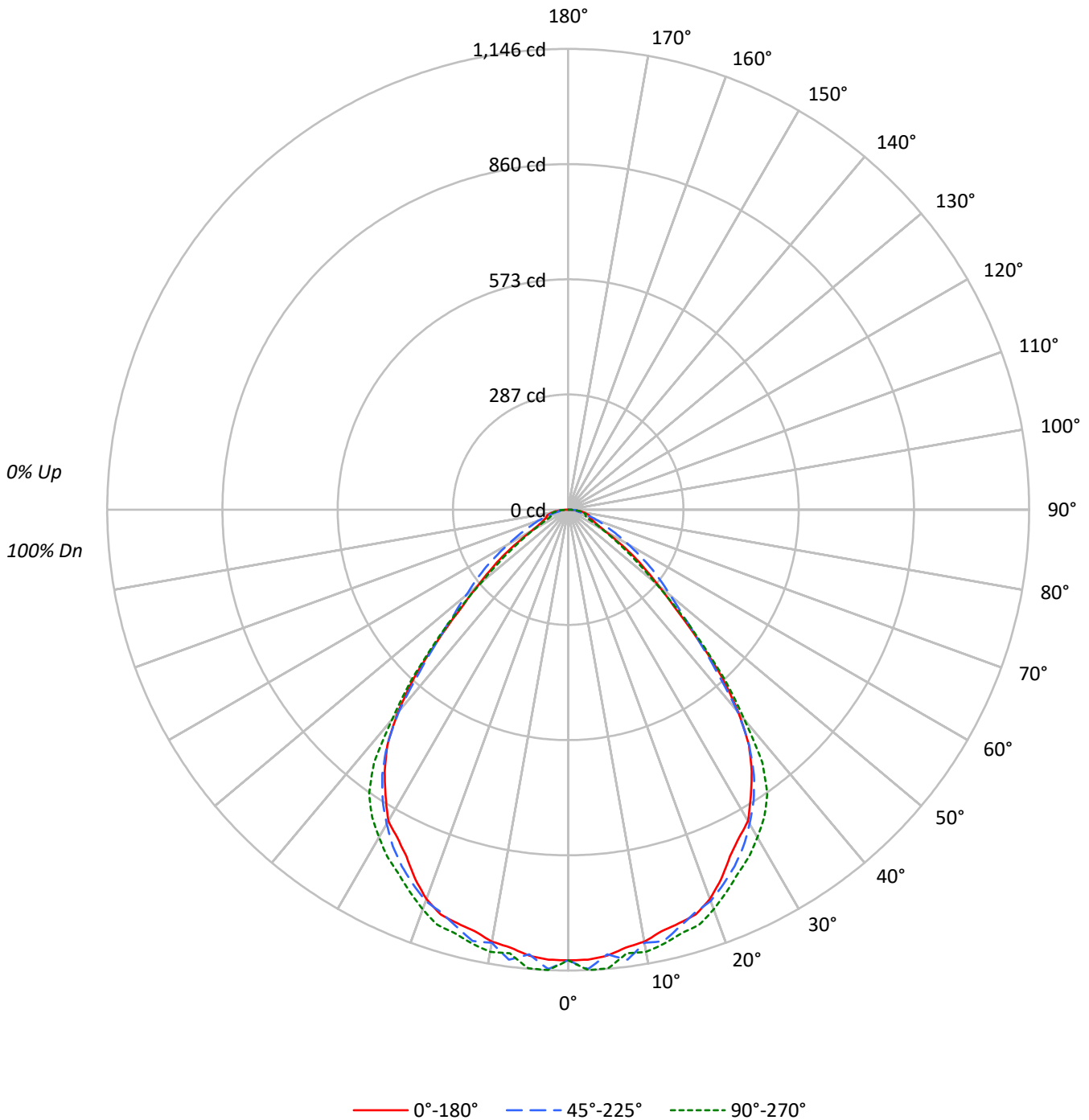
Input Watts (W): 15.81
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3015	3015	3015
5°	3008	2998	3092
10°	2980	2989	3051
15°	2966	2989	3037
20°	2951	2965	3029
25°	2825	2904	2964
30°	2778	2803	2923
35°	2613	2646	2834
40°	2315	2299	2390
45°	1729	1733	1781
50°	1217	1385	1179
55°	898	1169	806
60°	562	924	526
65°	458	732	367
70°	454	610	363
75°	564	448	469
80°	628	353	573
85°	627	658	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.7	5.0
10°-20°	303.8	14.1
20°-30°	450.0	20.9
30°-40°	504.0	23.4
40°-50°	370.4	17.2
50°-60°	207.0	9.6
60°-70°	115.4	5.4
70°-80°	67.8	3.2
80°-90°	24.9	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°	860.5	40.0
0°-40°	1364.5	63.5
0°-60°	1941.9	90.3
0°-90°	2150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2150.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1113	1134	1110	1133	1145	105
15°	1065	1071	1073	1089	1090	301
25°	951	959	978	992	998	441
35°	795	796	805	842	863	493
45°	454	491	455	488	468	355
55°	192	233	249	249	172	171
65°	72	128	115	147	58	74
75°	54	76	43	87	45	54
85°	20	30	21	27	21	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1120.5	1120.5	1120.5	1120.5	1120.5
2.5°	1120.0	1130.1	1143.3	1144.8	1145.8
5°	1113.4	1134.2	1109.9	1132.7	1144.8
7.5°	1098.2	1110.9	1128.6	1105.8	1112.4
10°	1090.6	1093.7	1093.7	1122.0	1116.5
12.5°	1073.4	1093.7	1098.7	1093.2	1105.3
15°	1064.8	1071.4	1072.9	1089.1	1090.1
17.5°	1055.2	1053.7	1050.1	1061.8	1082.5
20°	1030.4	1024.8	1035.4	1049.6	1057.7
22.5°	993.9	995.4	1008.1	1019.7	1028.8
25°	951.3	958.9	978.2	991.9	998.4
27.5°	919.4	930.6	943.7	959.9	973.1
30°	894.1	893.1	902.2	925.5	940.7
32.5°	844.9	848.5	858.1	886.0	907.3
35°	795.3	795.8	805.4	841.9	862.7
37.5°	738.1	734.0	739.6	779.1	792.8
40°	659.0	660.1	654.5	682.3	680.3
42.5°	566.8	575.0	546.1	582.5	580.0
45°	454.4	491.4	455.4	487.8	468.1
47.5°	358.6	413.4	383.5	407.3	370.3
50°	290.8	347.0	330.8	341.4	281.6
52.5°	238.6	284.2	289.2	291.8	219.8
55°	191.5	233.0	249.2	248.7	171.7
57.5°	141.3	189.5	208.2	215.8	130.2
60°	104.4	157.5	171.7	188.4	97.8
62.5°	84.1	138.3	141.8	165.1	74.5
65°	71.9	127.7	115.0	147.4	57.7
67.5°	63.8	119.0	93.7	131.7	49.1
70°	57.7	105.9	77.5	118.0	46.1
72.5°	56.2	90.2	59.8	105.4	45.6
75°	54.2	76.5	43.1	86.6	45.1
77.5°	46.6	65.3	30.9	66.9	42.0
80°	40.5	52.2	22.8	50.1	37.0
82.5°	31.4	39.5	20.3	38.0	29.9
85°	20.3	29.9	21.3	27.4	20.8
87.5°	9.6	16.7	15.2	14.7	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)