

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: NEO-RAY

Report Number: P231678

Luminaire Tested: **S123-DR-LO-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231678
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29683)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-DR-LO-40-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1455.2 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

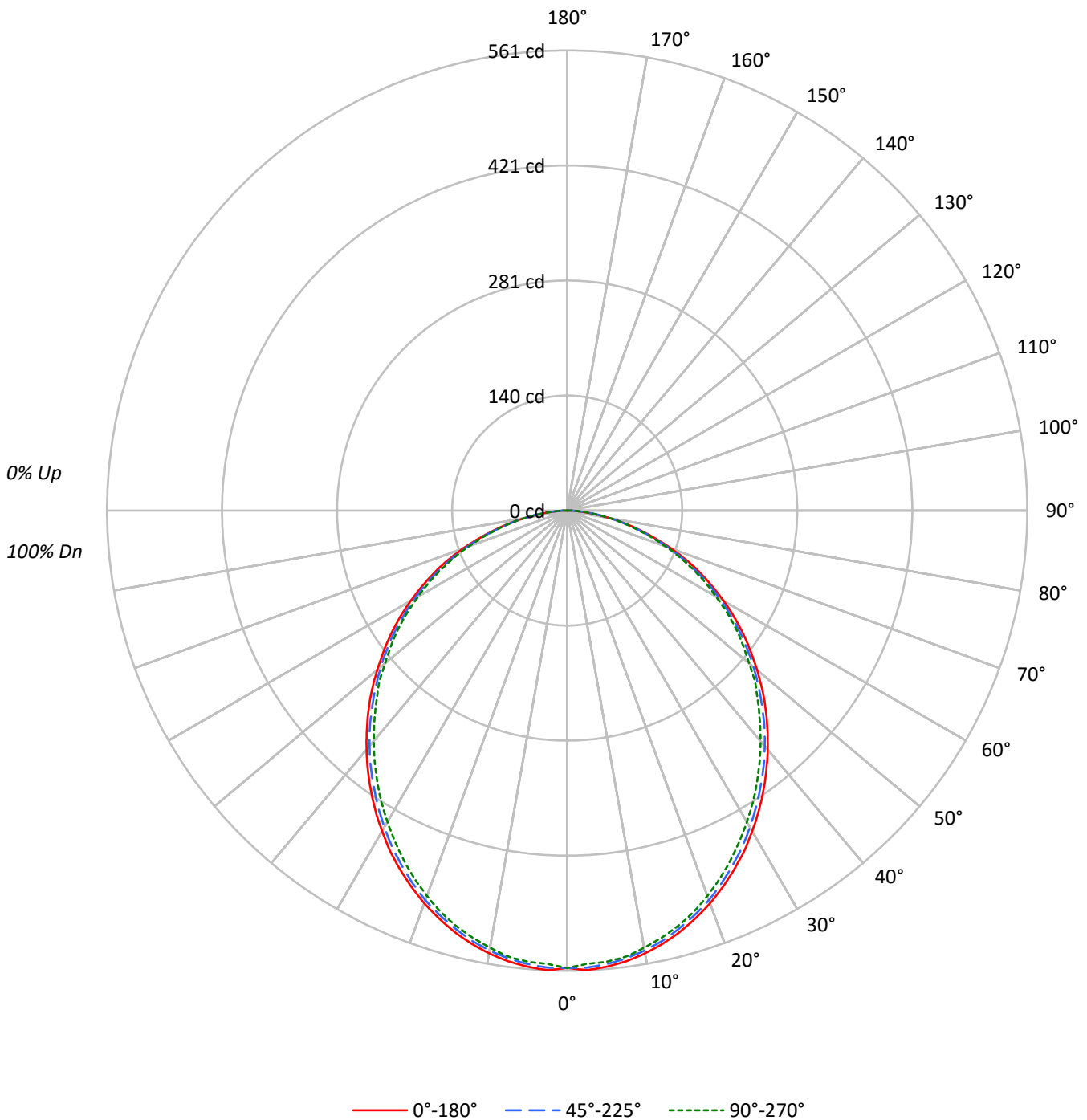
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P231678

CATALOG NUMBER: S123-DR-LO-40-X-0048-1-U-DD-1-W

Luminous Intensity Polar Plot





TEST NUMBER: P231678

CATALOG NUMBER: S123-DR-LO-40-X-0048-1-U-DD-1-W

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	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	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	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6864	6864	6864
5°	6896	6858	6821
10°	6850	6806	6762
15°	6773	6721	6676
20°	6673	6621	6547
25°	6551	6482	6393
30°	6412	6334	6227
35°	6267	6177	6064
40°	6113	6023	5895
45°	5958	5845	5723
50°	5786	5679	5545
55°	5622	5504	5396
60°	5425	5287	5152
65°	5189	5029	4927
70°	4858	4696	4588
75°	4346	4246	4151
80°	3700	3700	3700
85°	2980	3121	3121



TEST NUMBER: P231678

CATALOG NUMBER: S123-DR-LO-40-X-0048-1-U-DD-1-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.5	3.6
10°-20°	148.4	10.2
20°-30°	219.1	15.1
30°-40°	256.2	17.6
40°-50°	258.5	17.8
50°-60°	228.7	15.7
60°-70°	171.2	11.8
70°-80°	95.0	6.5
80°-90°	25.5	1.8
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°	420.0	28.9
0°-40°	676.2	46.5
0°-60°	1163.4	80.0
0°-90°	1455.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1455.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	558	553	555	553	552	53
15°	532	526	528	526	524	150
25°	482	476	477	472	471	222
35°	417	412	411	405	404	261
45°	342	338	336	330	329	264
55°	262	260	256	252	252	234
65°	178	176	173	170	169	176
75°	91	90	89	88	87	97
85°	21	22	22	22	22	25
90°	0	0	0	0	0	



TEST NUMBER: P231678

CATALOG NUMBER: S123-DR-LO-40-X-0048-1-U-DD-1-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	557.7	557.7	557.7	557.7	557.7
2.5°	560.7	554.6	557.7	556.1	553.1
5°	558.2	552.6	555.1	553.1	552.1
7.5°	554.1	548.1	550.6	548.6	548.6
10°	548.1	542.1	544.6	542.1	541.1
12.5°	540.6	534.6	537.1	534.1	533.1
15°	531.6	525.5	527.5	525.5	524.0
17.5°	521.0	515.5	517.0	514.5	513.0
20°	509.5	503.4	505.5	501.4	499.9
22.5°	496.4	490.4	491.9	486.9	485.9
25°	482.4	476.3	477.3	472.3	470.8
27.5°	467.8	461.3	462.3	456.8	454.8
30°	451.2	445.2	445.7	440.2	438.2
32.5°	434.7	428.7	428.7	422.6	421.6
35°	417.1	411.6	411.1	405.1	403.6
37.5°	399.0	394.0	393.5	387.0	385.5
40°	380.5	376.0	374.9	368.4	366.9
42.5°	361.4	356.9	355.9	349.3	347.8
45°	342.3	337.8	335.8	330.3	328.8
47.5°	322.7	319.2	316.2	311.2	311.2
50°	302.2	299.2	296.6	291.6	289.6
52.5°	282.1	279.6	276.6	272.1	270.5
55°	262.0	259.5	256.5	251.5	251.5
57.5°	241.4	238.4	235.4	231.9	230.9
60°	220.4	217.8	214.8	211.3	209.3
62.5°	199.3	197.3	194.3	191.2	190.2
65°	178.2	175.7	172.7	170.2	169.2
67.5°	157.1	154.1	151.6	149.1	148.6
70°	135.0	132.5	130.5	127.5	127.5
72.5°	112.4	110.4	109.4	107.9	107.4
75°	91.4	90.3	89.3	87.8	87.3
77.5°	71.3	71.3	70.3	69.8	69.8
80°	52.2	53.2	52.2	52.2	52.2
82.5°	35.1	35.6	36.1	36.1	35.6
85°	21.1	22.1	22.1	21.6	22.1
87.5°	10.0	10.0	10.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)