

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: P231675

Luminaire Tested: **S123-DR-LO-27-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231675
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-27-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1102.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

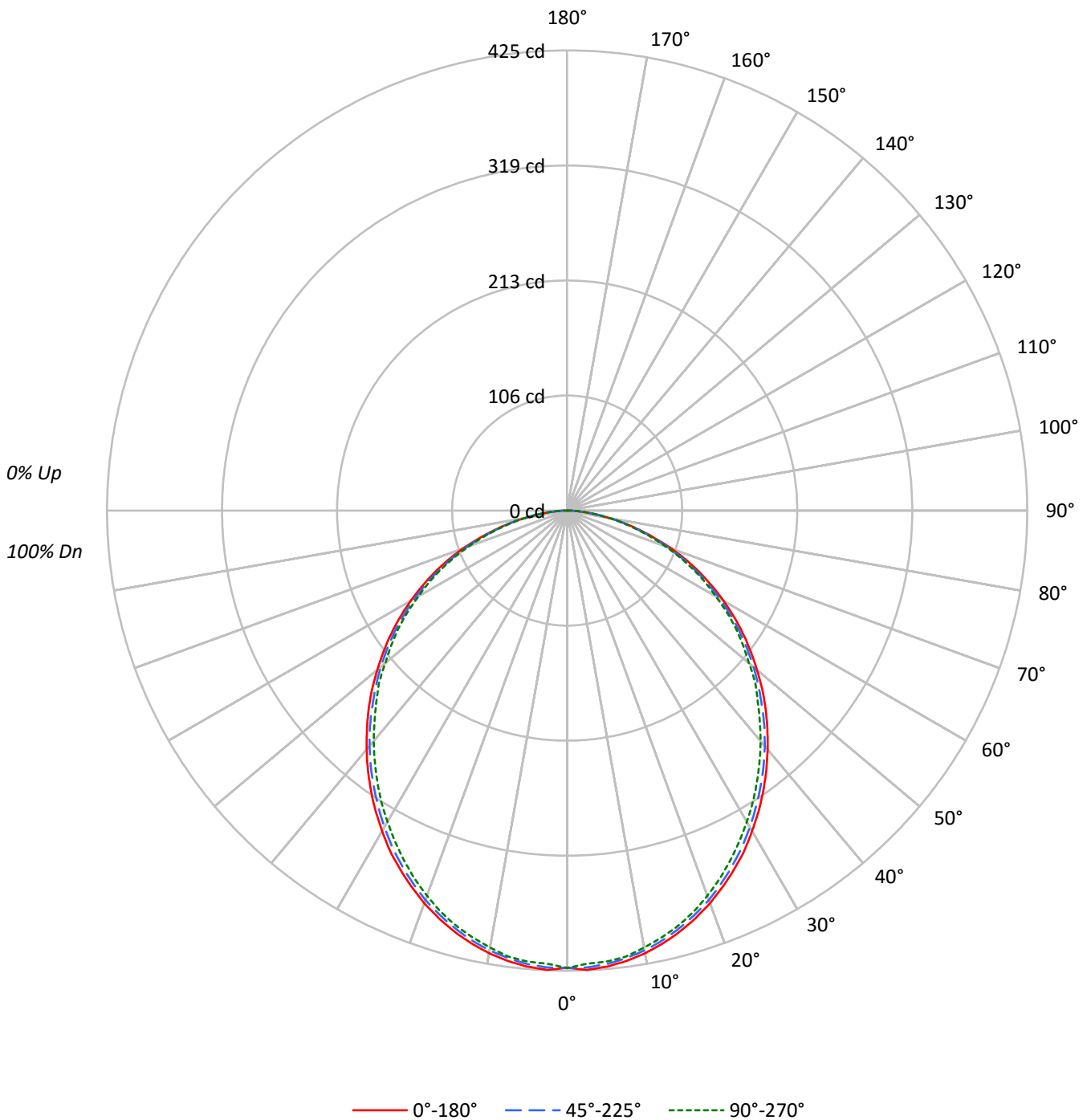
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	5197	5197	5197
5°	5222	5194	5165
10°	5188	5154	5121
15°	5128	5090	5056
20°	5053	5014	4959
25°	4961	4909	4841
30°	4856	4796	4715
35°	4746	4677	4591
40°	4629	4561	4465
45°	4511	4426	4334
50°	4381	4300	4199
55°	4257	4167	4085
60°	4108	4005	3901
65°	3928	3809	3730
70°	3681	3555	3472
75°	3291	3219	3143
80°	2800	2800	2800
85°	2259	2358	2358



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	3.6
10°-20°	112.4	10.2
20°-30°	165.9	15.1
30°-40°	194.0	17.6
40°-50°	195.8	17.8
50°-60°	173.2	15.7
60°-70°	129.6	11.8
70°-80°	72.0	6.5
80°-90°	19.3	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°	318.0	28.9
0°-40°	512.1	46.5
0°-60°	881.1	80.0
0°-90°	1102.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1102.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	422	422	422	422	422	
5°	423	418	420	419	418	40
15°	402	398	400	398	397	113
25°	365	361	362	358	356	168
35°	316	312	311	307	306	198
45°	259	256	254	250	249	200
55°	198	196	194	190	190	177
65°	135	133	131	129	128	133
75°	69	68	68	66	66	74
85°	16	17	17	16	17	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	422.3	422.3	422.3	422.3	422.3
2.5°	424.6	420.0	422.3	421.2	418.9
5°	422.7	418.5	420.4	418.9	418.1
7.5°	419.6	415.1	417.0	415.5	415.5
10°	415.1	410.5	412.4	410.5	409.8
12.5°	409.4	404.8	406.7	404.4	403.7
15°	402.5	398.0	399.5	398.0	396.8
17.5°	394.6	390.4	391.5	389.6	388.5
20°	385.8	381.3	382.8	379.7	378.6
22.5°	375.9	371.4	372.5	368.7	368.0
25°	365.3	360.7	361.5	357.7	356.5
27.5°	354.3	349.3	350.1	345.9	344.4
30°	341.7	337.2	337.5	333.4	331.8
32.5°	329.2	324.6	324.6	320.1	319.3
35°	315.9	311.7	311.3	306.8	305.6
37.5°	302.2	298.4	298.0	293.1	291.9
40°	288.1	284.7	283.9	279.0	277.9
42.5°	273.7	270.3	269.5	264.6	263.4
45°	259.2	255.8	254.3	250.1	249.0
47.5°	244.4	241.8	239.5	235.7	235.7
50°	228.8	226.5	224.6	220.8	219.3
52.5°	213.6	211.7	209.4	206.0	204.9
55°	198.4	196.5	194.2	190.4	190.4
57.5°	182.8	180.6	178.3	175.6	174.9
60°	166.9	165.0	162.7	160.0	158.5
62.5°	150.9	149.4	147.1	144.8	144.1
65°	134.9	133.0	130.8	128.9	128.1
67.5°	119.0	116.7	114.8	112.9	112.5
70°	102.3	100.4	98.8	96.5	96.5
72.5°	85.1	83.6	82.9	81.7	81.3
75°	69.2	68.4	67.7	66.5	66.1
77.5°	54.0	54.0	53.2	52.8	52.8
80°	39.5	40.3	39.5	39.5	39.5
82.5°	26.6	27.0	27.4	27.4	27.0
85°	16.0	16.7	16.7	16.3	16.7
87.5°	7.6	7.6	7.6	7.6	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)