

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: P231735

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33914)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-RDR-LO-27-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR REGRESSED 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: 971.6 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.07 / 1.23
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

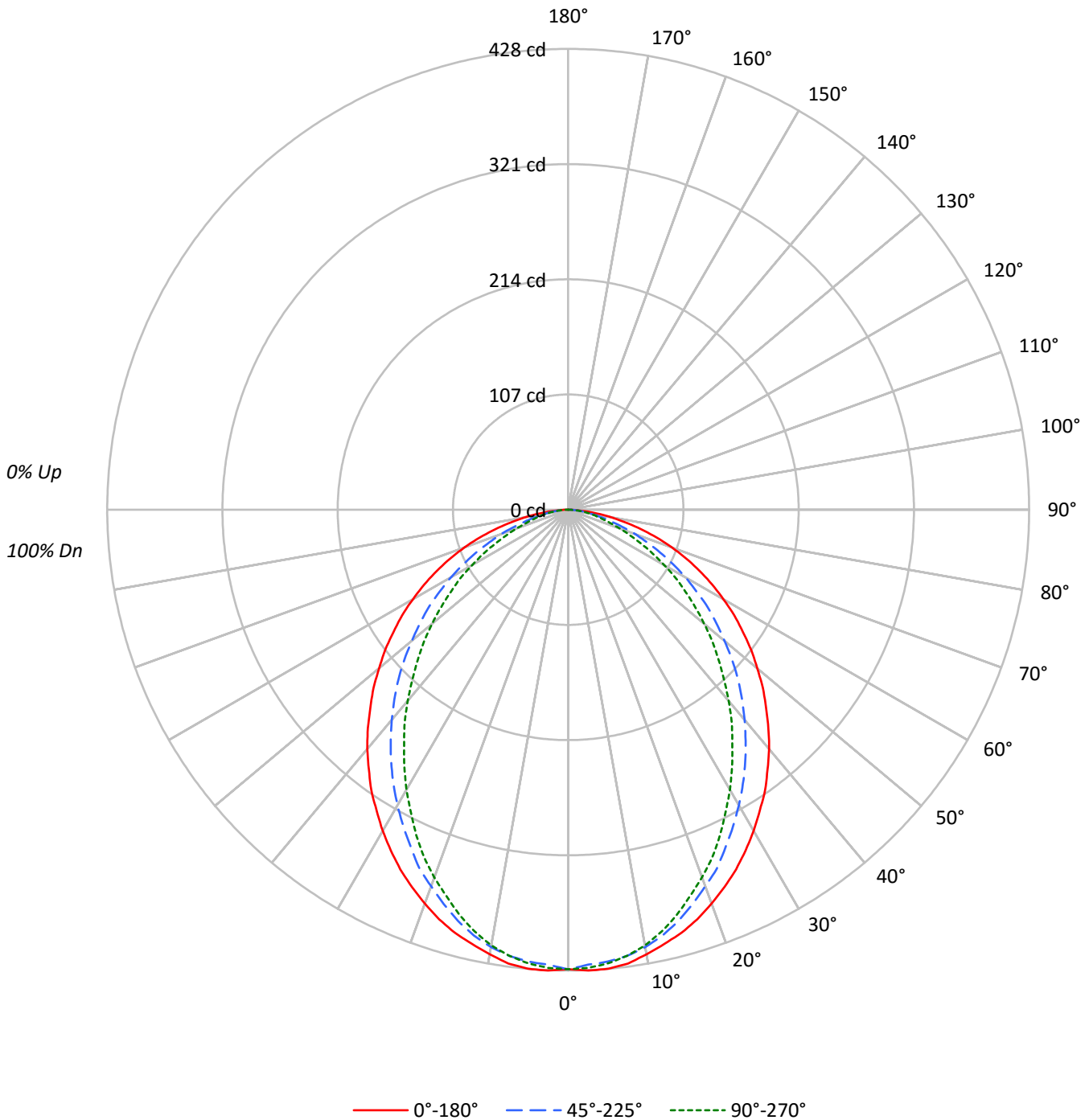
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5253	5253	5253
5°	5288	5205	5226
10°	5239	5156	5135
15°	5182	5038	4964
20°	5097	4873	4758
25°	5007	4694	4530
30°	4896	4504	4266
35°	4787	4304	3990
40°	4662	4092	3722
45°	4520	3881	3438
50°	4388	3630	3157
55°	4246	3397	2849
60°	4101	3094	2538
65°	3917	2749	2175
70°	3681	2375	1832
75°	3338	1907	1531
80°	2870	1538	1417
85°	2245	1299	1243



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	4.1
10°-20°	111.9	11.5
20°-30°	160.8	16.5
30°-40°	181.0	18.6
40°-50°	174.0	17.9
50°-60°	144.3	14.8
60°-70°	98.4	10.1
70°-80°	48.9	5.0
80°-90°	12.1	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°	312.9	32.2
0°-40°	493.9	50.8
0°-60°	812.2	83.6
0°-90°	971.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	971.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	428	426	421	424	423	41
15°	407	403	395	394	390	115
25°	369	362	346	339	334	170
35°	319	306	286	273	266	199
45°	260	246	223	205	198	201
55°	198	182	158	140	133	177
65°	134	118	94	80	75	133
75°	70	56	40	33	32	74
85°	16	10	9	9	9	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	426.8	426.8	426.8	426.8	426.8
2.5°	428.4	426.8	423.0	426.8	425.9
5°	428.0	426.3	421.3	424.2	423.0
7.5°	425.1	423.0	418.0	419.7	418.0
10°	419.2	418.0	412.6	413.4	410.9
12.5°	413.0	410.9	405.0	405.0	401.3
15°	406.7	403.0	395.4	394.2	389.6
17.5°	398.8	396.3	384.2	382.1	376.2
20°	389.2	384.6	372.1	368.3	363.3
22.5°	379.2	373.7	360.8	354.5	349.5
25°	368.7	362.4	345.7	338.6	333.6
27.5°	356.6	349.5	331.5	323.2	316.5
30°	344.5	335.7	316.9	306.9	300.2
32.5°	331.1	321.9	301.9	289.4	283.1
35°	318.6	306.5	286.5	272.7	265.6
37.5°	304.0	291.9	270.6	255.1	249.3
40°	290.2	277.3	254.7	238.4	231.7
42.5°	275.2	261.4	238.8	221.7	214.2
45°	259.7	245.9	223.0	204.6	197.5
47.5°	245.1	230.5	206.3	188.3	181.6
50°	229.2	215.0	189.6	171.6	164.9
52.5°	214.2	198.3	173.3	155.3	148.7
55°	197.9	182.5	158.3	139.5	132.8
57.5°	182.9	166.6	141.1	123.6	119.0
60°	166.6	149.9	125.7	109.0	103.1
62.5°	150.7	133.2	109.4	94.0	88.9
65°	134.5	117.8	94.4	79.8	74.7
67.5°	118.6	102.3	78.9	66.8	62.2
70°	102.3	86.4	66.0	54.3	50.9
72.5°	86.0	71.4	52.2	43.0	40.5
75°	70.2	56.4	40.1	33.4	32.2
77.5°	54.3	43.0	29.6	26.3	25.9
80°	40.5	29.6	21.7	20.0	20.0
82.5°	27.1	18.4	15.0	14.6	14.2
85°	15.9	10.4	9.2	9.2	8.8
87.5°	6.7	4.2	4.2	4.2	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)