

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: P231736

Luminaire Tested: **S123-RDR-LO-30-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231736
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-30-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1210.4 lumens
Efficiency: N/A
Efficacy: 89.0 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

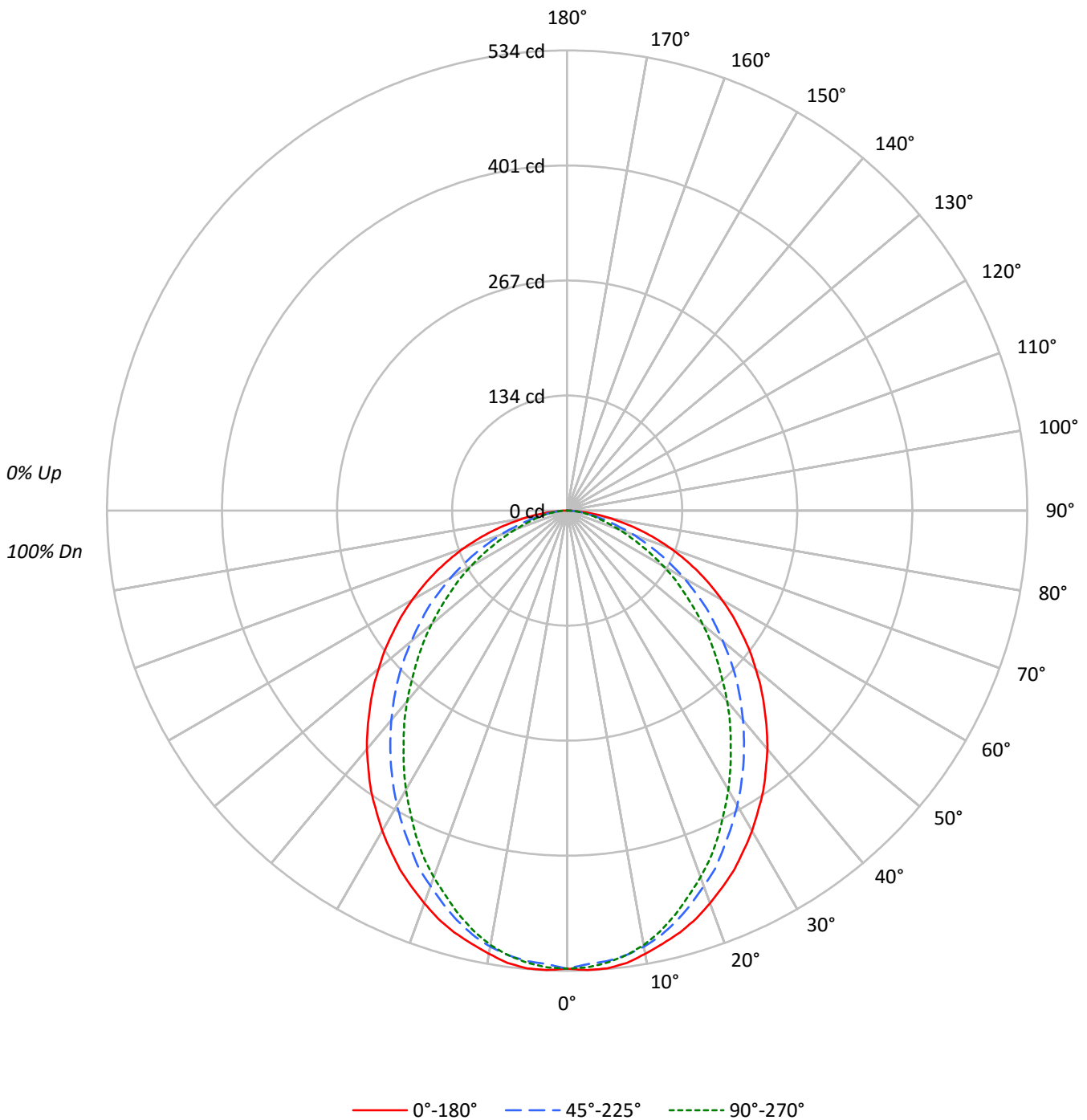
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6543	6543	6543
5°	6587	6485	6509
10°	6527	6422	6397
15°	6456	6276	6183
20°	6349	6071	5928
25°	6237	5849	5644
30°	6099	5611	5315
35°	5963	5361	4970
40°	5808	5098	4638
45°	5632	4835	4282
50°	5468	4522	3935
55°	5291	4229	3549
60°	5110	3855	3163
65°	4878	3425	2711
70°	4584	2958	2285
75°	4156	2373	1907
80°	3579	1914	1772
85°	2796	1610	1539



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	4.1
10°-20°	139.4	11.5
20°-30°	200.3	16.5
30°-40°	225.4	18.6
40°-50°	216.8	17.9
50°-60°	179.7	14.8
60°-70°	122.6	10.1
70°-80°	60.9	5.0
80°-90°	15.1	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°	389.8	32.2
0°-40°	615.2	50.8
0°-60°	1011.8	83.6
0°-90°	1210.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1210.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	532	532	532	532	532	
5°	533	531	525	528	527	51
15°	507	502	493	491	485	143
25°	459	452	431	422	416	211
35°	397	382	357	340	331	248
45°	324	306	278	255	246	250
55°	247	227	197	174	165	221
65°	168	147	118	99	93	166
75°	87	70	50	42	40	93
85°	20	13	11	11	11	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	531.6	531.6	531.6	531.6	531.6
2.5°	533.7	531.6	526.9	531.6	530.6
5°	533.2	531.1	524.9	528.5	526.9
7.5°	529.5	526.9	520.7	522.8	520.7
10°	522.3	520.7	513.9	515.0	511.9
12.5°	514.5	511.9	504.6	504.6	499.9
15°	506.7	502.0	492.6	491.1	485.3
17.5°	496.8	493.7	478.6	476.0	468.7
20°	484.8	479.1	463.5	458.8	452.6
22.5°	472.3	465.6	449.4	441.6	435.4
25°	459.3	451.5	430.7	421.9	415.6
27.5°	444.2	435.4	413.0	402.6	394.3
30°	429.2	418.2	394.8	382.3	374.0
32.5°	412.5	401.1	376.1	360.5	352.7
35°	396.9	381.8	356.8	339.7	330.8
37.5°	378.7	363.6	337.1	317.8	310.5
40°	361.5	345.4	317.3	297.0	288.7
42.5°	342.8	325.6	297.5	276.2	266.9
45°	323.6	306.4	277.8	254.9	246.0
47.5°	305.3	287.1	257.0	234.6	226.3
50°	285.6	267.9	236.2	213.8	205.5
52.5°	266.9	247.1	215.9	193.5	185.2
55°	246.6	227.3	197.1	173.7	165.4
57.5°	227.8	207.6	175.8	154.0	148.3
60°	207.6	186.7	156.6	135.8	128.5
62.5°	187.8	165.9	136.3	117.0	110.8
65°	167.5	146.7	117.6	99.4	93.1
67.5°	147.7	127.4	98.3	83.2	77.5
70°	127.4	107.7	82.2	67.6	63.5
72.5°	107.2	89.0	65.0	53.6	50.5
75°	87.4	70.2	49.9	41.6	40.1
77.5°	67.6	53.6	36.9	32.8	32.3
80°	50.5	36.9	27.0	25.0	25.0
82.5°	33.8	22.9	18.7	18.2	17.7
85°	19.8	13.0	11.4	11.4	10.9
87.5°	8.3	5.2	5.2	5.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)