

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: P231739

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231739
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-1-27-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: 1973.0 lumens
Efficiency: N/A
Efficacy: 70.7 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

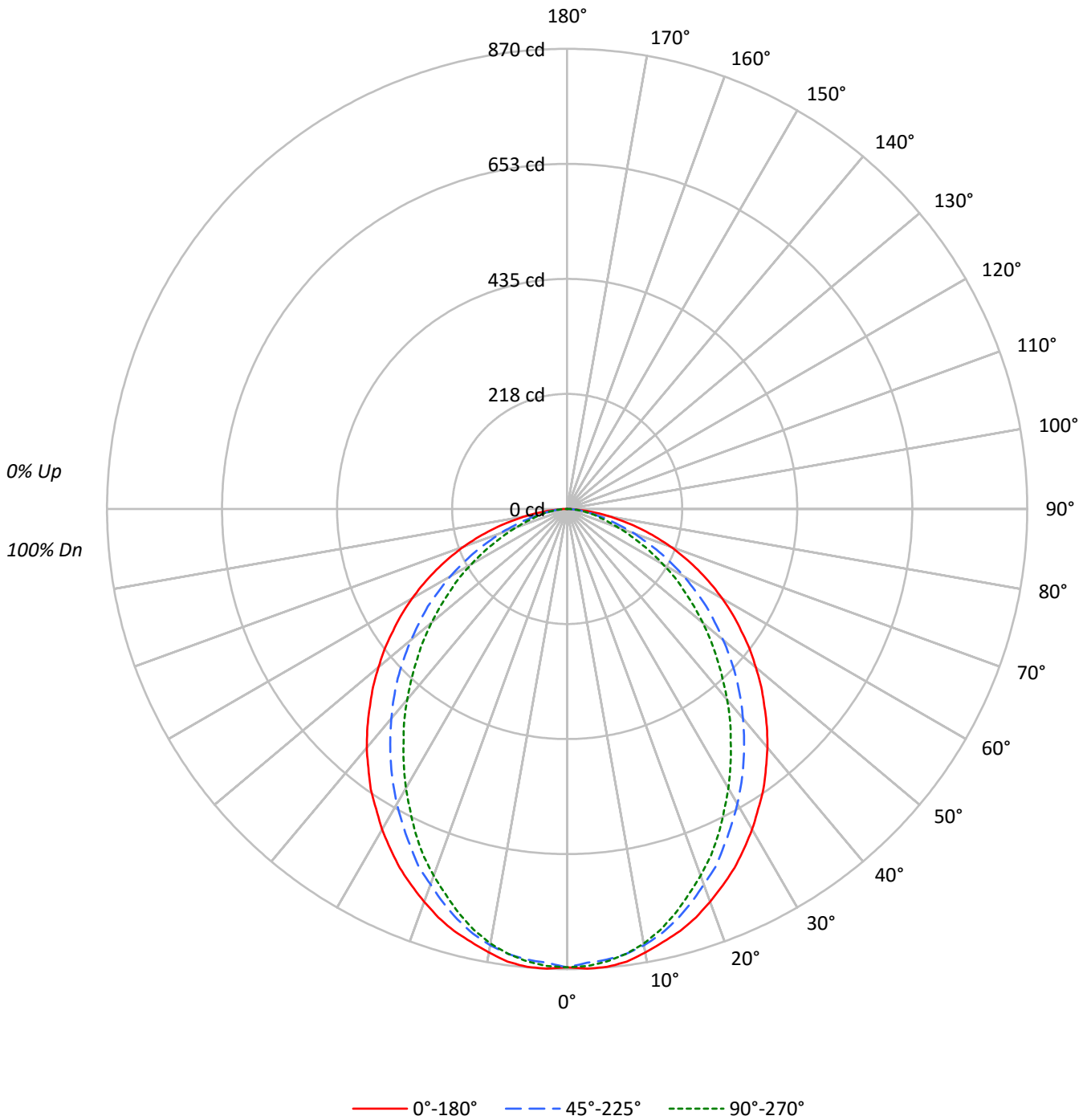
Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10665	10665	10665
5°	10737	10569	10611
10°	10639	10469	10426
15°	10523	10231	10080
20°	10349	9895	9662
25°	10167	9534	9200
30°	9941	9146	8663
35°	9721	8740	8103
40°	9468	8309	7561
45°	9179	7881	6981
50°	8913	7370	6412
55°	8624	6896	5785
60°	8327	6282	5154
65°	7950	5580	4421
70°	7474	4822	3721
75°	6771	3871	3105
80°	5826	3126	2885
85°	4547	2641	2514



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.6	4.1
10°-20°	227.3	11.5
20°-30°	326.5	16.5
30°-40°	367.5	18.6
40°-50°	353.4	17.9
50°-60°	293.0	14.8
60°-70°	199.9	10.1
70°-80°	99.3	5.0
80°-90°	24.6	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°	635.4	32.2
0°-40°	1002.8	50.8
0°-60°	1649.2	83.6
0°-90°	1973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	867	867	867	867	867	
5°	869	866	856	862	859	82
15°	826	818	803	800	791	233
25°	749	736	702	688	678	344
35°	647	622	582	554	539	404
45°	527	499	453	416	401	407
55°	402	370	321	283	270	360
65°	273	239	192	162	152	270
75°	142	114	81	68	65	151
85°	32	21	19	19	18	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	866.6	866.6	866.6	866.6	866.6
2.5°	869.9	866.6	858.9	866.6	864.9
5°	869.1	865.7	855.5	861.5	858.9
7.5°	863.2	858.9	848.8	852.1	848.8
10°	851.3	848.8	837.7	839.4	834.3
12.5°	838.6	834.3	822.5	822.5	814.8
15°	825.9	818.2	803.0	800.4	791.1
17.5°	809.7	804.7	780.1	775.8	764.0
20°	790.2	780.9	755.5	747.9	737.7
22.5°	769.9	758.9	732.6	719.9	709.7
25°	748.7	736.0	702.1	687.7	677.5
27.5°	724.1	709.7	673.2	656.3	642.7
30°	699.5	681.7	643.6	623.2	609.6
32.5°	672.4	653.7	613.0	587.6	574.9
35°	647.0	622.4	581.7	553.7	539.3
37.5°	617.3	592.7	549.4	518.1	506.2
40°	589.3	563.0	517.2	484.2	470.6
42.5°	558.8	530.8	485.0	450.2	435.0
45°	527.4	499.4	452.8	415.5	401.1
47.5°	497.7	468.0	418.9	382.4	368.8
50°	465.5	436.7	384.9	348.5	334.9
52.5°	435.0	402.8	351.9	315.4	301.9
55°	401.9	370.5	321.4	283.2	269.6
57.5°	371.4	338.3	286.6	251.0	241.7
60°	338.3	304.4	255.2	221.3	209.4
62.5°	306.1	270.5	222.2	190.8	180.6
65°	273.0	239.1	191.6	161.9	151.8
67.5°	240.8	207.7	160.3	135.7	126.3
70°	207.7	175.5	134.0	110.2	103.4
72.5°	174.7	145.0	106.0	87.3	82.2
75°	142.4	114.5	81.4	67.8	65.3
77.5°	110.2	87.3	60.2	53.4	52.6
80°	82.2	60.2	44.1	40.7	40.7
82.5°	55.1	37.3	30.5	29.7	28.8
85°	32.2	21.2	18.7	18.7	17.8
87.5°	13.6	8.5	8.5	8.5	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)