

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059254

Luminaire Tested: S123RDR-S560D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059254
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

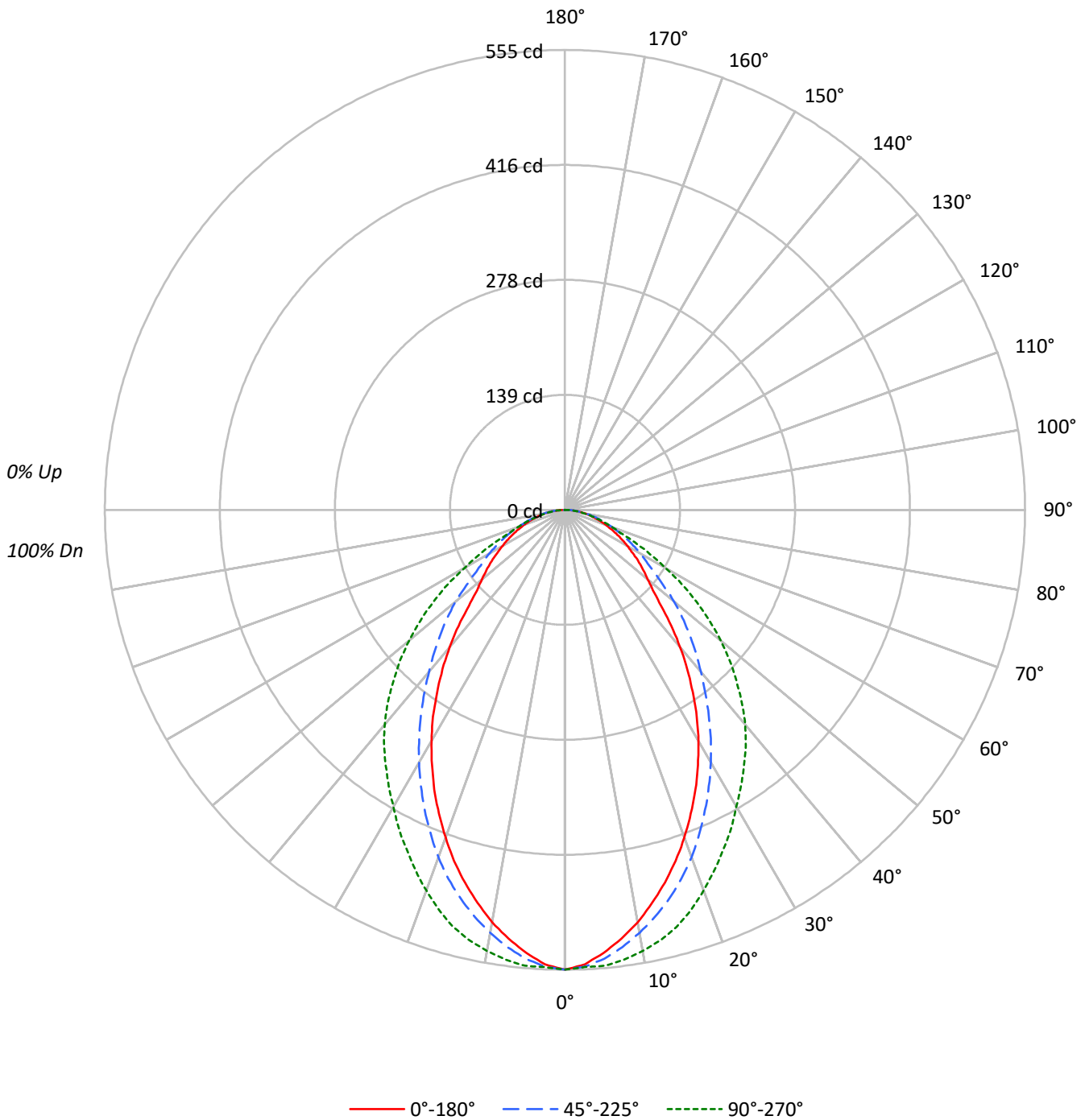
Lumens per Lamp: N/A
Luminaire Lumens: 1002.2 lumens
Efficiency: N/A
Efficacy: 51.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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: 24 FT

TEST NUMBER: P1059254

CATALOG NUMBER: S123RDR-S560D830-X4F0-XX-UDD-WVL-S

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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6515	6515	6515
5°	6325	6410	6509
10°	6026	6181	6445
15°	5661	5907	6334
20°	5258	5576	6112
25°	4829	5183	5858
30°	4366	4771	5609
35°	3850	4336	5399
40°	3311	3909	5184
45°	2722	3521	4861
50°	2388	3137	4479
55°	2211	2676	3968
60°	2031	2459	3283
65°	1898	2259	2584
70°	1785	2053	2053
75°	1683	1887	1769
80°	1582	1718	1494
85°	1495	1671	1145

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4861 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	5.1
10°-20°	137.5	13.7
20°-30°	186.5	18.6
30°-40°	195.0	19.5
40°-50°	169.1	16.9
50°-60°	125.8	12.6
60°-70°	80.7	8.1
70°-80°	43.3	4.3
80°-90°	13.1	1.3
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°	375.3	37.4
0°-40°	570.3	56.9
0°-60°	865.2	86.3
0°-90°	1002.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1002.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	537	546	544	548	552	50
15°	466	477	486	505	521	131
25°	373	384	400	427	452	171
35°	269	282	302	341	377	168
45°	164	176	212	258	293	129
55°	108	111	131	168	194	97
65°	68	74	81	86	93	68
75°	37	43	42	40	39	39
85°	11	14	12	10	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.8	554.8	554.8	554.8	554.8
2.5°	549.0	556.8	551.6	551.6	552.2
5°	536.6	545.7	543.8	547.7	552.2
7.5°	521.7	531.4	532.1	541.2	547.7
10°	505.4	515.2	518.4	531.4	540.5
12.5°	485.9	496.9	502.8	519.1	532.1
15°	465.7	476.8	485.9	505.4	521.0
17.5°	444.3	455.3	467.0	489.1	506.1
20°	420.8	432.6	446.2	468.3	489.1
22.5°	396.8	409.1	423.4	447.5	470.9
25°	372.7	384.4	400.0	426.7	452.1
27.5°	347.3	359.7	376.0	405.2	433.9
30°	322.0	334.3	351.9	383.1	413.7
32.5°	296.0	308.3	327.2	362.3	395.5
35°	268.6	281.6	302.5	340.8	376.6
37.5°	242.6	255.0	278.4	320.7	358.4
40°	216.0	229.0	255.0	300.5	338.2
42.5°	189.9	202.9	233.5	279.0	316.1
45°	163.9	176.3	212.0	257.6	292.7
47.5°	143.8	152.9	191.9	234.8	269.9
50°	130.7	134.0	171.7	212.7	245.2
52.5°	119.0	121.6	149.6	190.6	219.9
55°	108.0	110.6	130.7	167.8	193.8
57.5°	96.9	100.2	116.4	144.4	167.8
60°	86.5	90.4	104.7	123.6	139.8
62.5°	77.4	82.0	93.0	104.7	115.8
65°	68.3	74.2	81.3	86.5	93.0
67.5°	59.8	66.3	70.2	71.6	72.2
70°	52.0	58.5	59.8	59.8	59.8
72.5°	44.2	51.4	50.1	49.4	48.8
75°	37.1	42.9	41.6	39.7	39.0
77.5°	29.9	35.1	33.2	31.9	29.9
80°	23.4	27.3	25.4	24.1	22.1
82.5°	17.6	20.2	18.2	16.9	15.0
85°	11.1	13.7	12.4	10.4	8.5
87.5°	5.9	7.8	6.5	5.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)