

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: P1059248

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059248
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D830-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

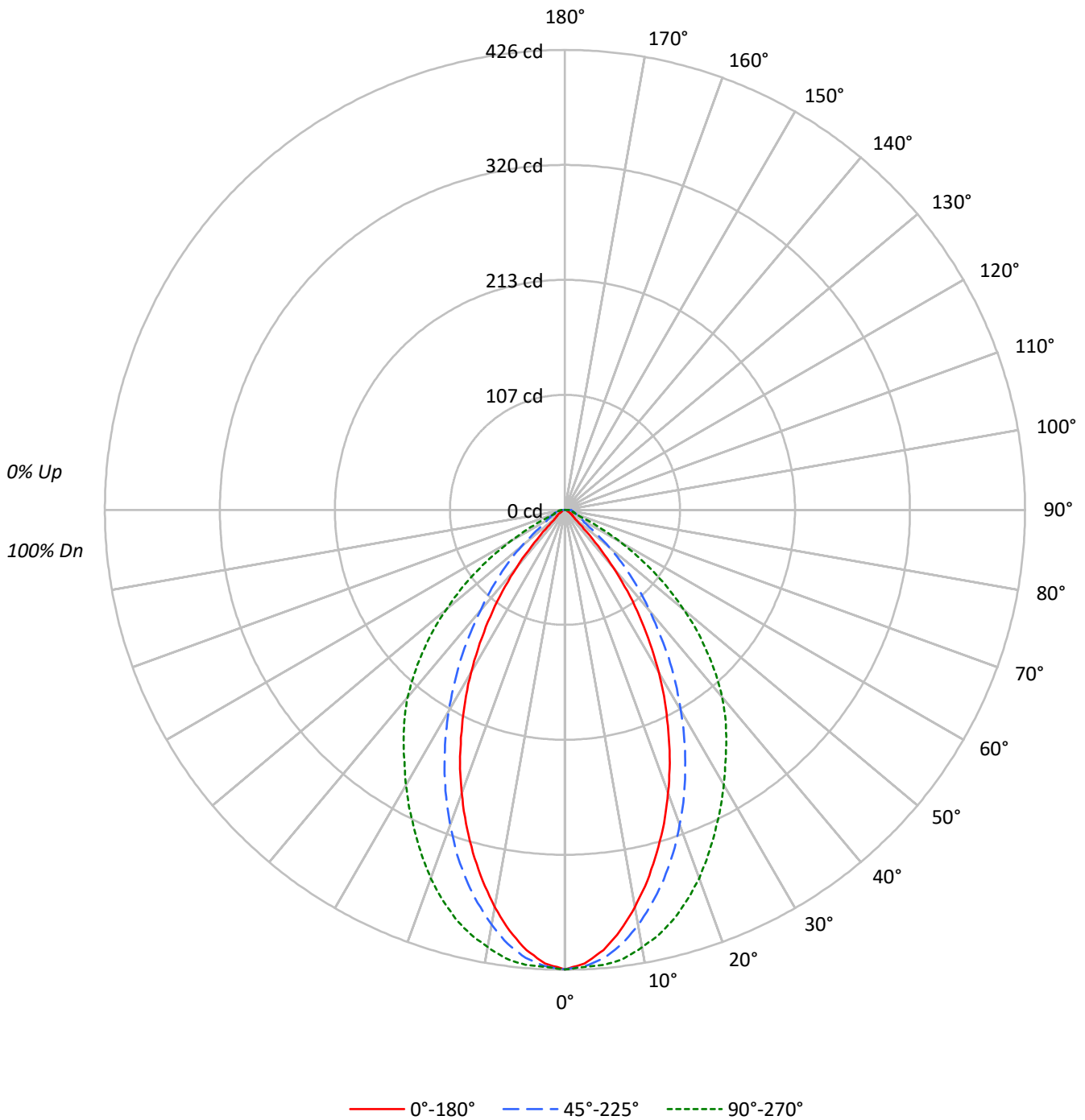
Lumens per Lamp: N/A
Luminaire Lumens: 511.3 lumens
Efficiency: N/A
Efficacy: 26.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4999	4999	4999
5°	4826	4911	4987
10°	4455	4656	4905
15°	3996	4305	4763
20°	3489	3880	4539
25°	2935	3415	4259
30°	2357	2912	3989
35°	1726	2398	3733
40°	1067	1865	3472
45°	410	1405	3092
50°	203	963	2616
55°	160	532	2051
60°	108	444	1376
65°	92	397	614
70°	89	357	357
75°	118	386	354
80°	176	487	399
85°	269	795	525

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3092 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.0	7.6
10°-20°	99.9	19.5
20°-30°	124.0	24.3
30°-40°	111.1	21.7
40°-50°	73.0	14.3
50°-60°	36.6	7.2
60°-70°	14.4	2.8
70°-80°	8.1	1.6
80°-90°	5.1	1.0
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°	263.0	51.4
0°-40°	374.1	73.2
0°-60°	483.7	94.6
0°-90°	511.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	426	426	426	426	426	
5°	409	416	417	419	423	38
15°	329	339	354	378	392	92
25°	226	241	264	301	329	104
35°	120	137	167	219	260	75
45°	25	41	85	142	186	23
55°	8	9	26	70	100	7
65°	3	9	14	18	22	3
75°	3	8	8	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	425.7	425.7	425.7	425.7	425.7
2.5°	420.5	426.3	423.1	423.1	423.7
5°	409.4	415.9	416.6	419.2	423.1
7.5°	393.1	401.6	405.5	413.3	419.2
10°	373.6	382.7	390.5	404.2	411.4
12.5°	352.1	361.2	373.0	391.8	402.9
15°	328.7	339.1	354.1	378.2	391.8
17.5°	304.6	315.0	333.3	360.6	378.2
20°	279.2	290.9	310.5	341.7	363.2
22.5°	253.8	266.9	287.7	321.5	346.3
25°	226.5	240.8	263.6	300.7	328.7
27.5°	200.5	215.4	239.5	279.9	311.8
30°	173.8	188.8	214.8	258.4	294.2
32.5°	146.5	163.4	190.7	238.2	276.6
35°	120.4	136.7	167.3	218.7	260.4
37.5°	95.0	111.3	143.2	199.8	244.1
40°	69.6	86.6	121.7	181.6	226.5
42.5°	45.6	63.1	102.8	163.4	207.0
45°	24.7	41.0	84.6	142.5	186.2
47.5°	13.7	22.1	68.3	123.0	166.0
50°	11.1	12.4	52.7	104.8	143.2
52.5°	9.1	10.4	37.8	87.2	122.4
55°	7.8	9.1	26.0	70.3	100.2
57.5°	6.5	7.8	20.8	54.0	78.8
60°	4.6	7.8	18.9	39.7	58.6
62.5°	3.9	7.8	16.3	27.3	39.1
65°	3.3	9.1	14.3	18.2	22.1
67.5°	2.6	9.1	12.4	11.7	11.7
70°	2.6	9.1	10.4	9.8	10.4
72.5°	2.6	9.8	9.8	9.1	9.1
75°	2.6	8.5	8.5	7.8	7.8
77.5°	2.6	7.8	7.8	7.2	7.2
80°	2.6	7.2	7.2	6.5	5.9
82.5°	2.6	6.5	6.5	5.9	5.2
85°	2.0	5.9	5.9	5.9	3.9
87.5°	2.0	5.2	5.9	5.2	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)