

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: P1059281

Luminaire Tested: S123RDR-S560D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059281
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-S560D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

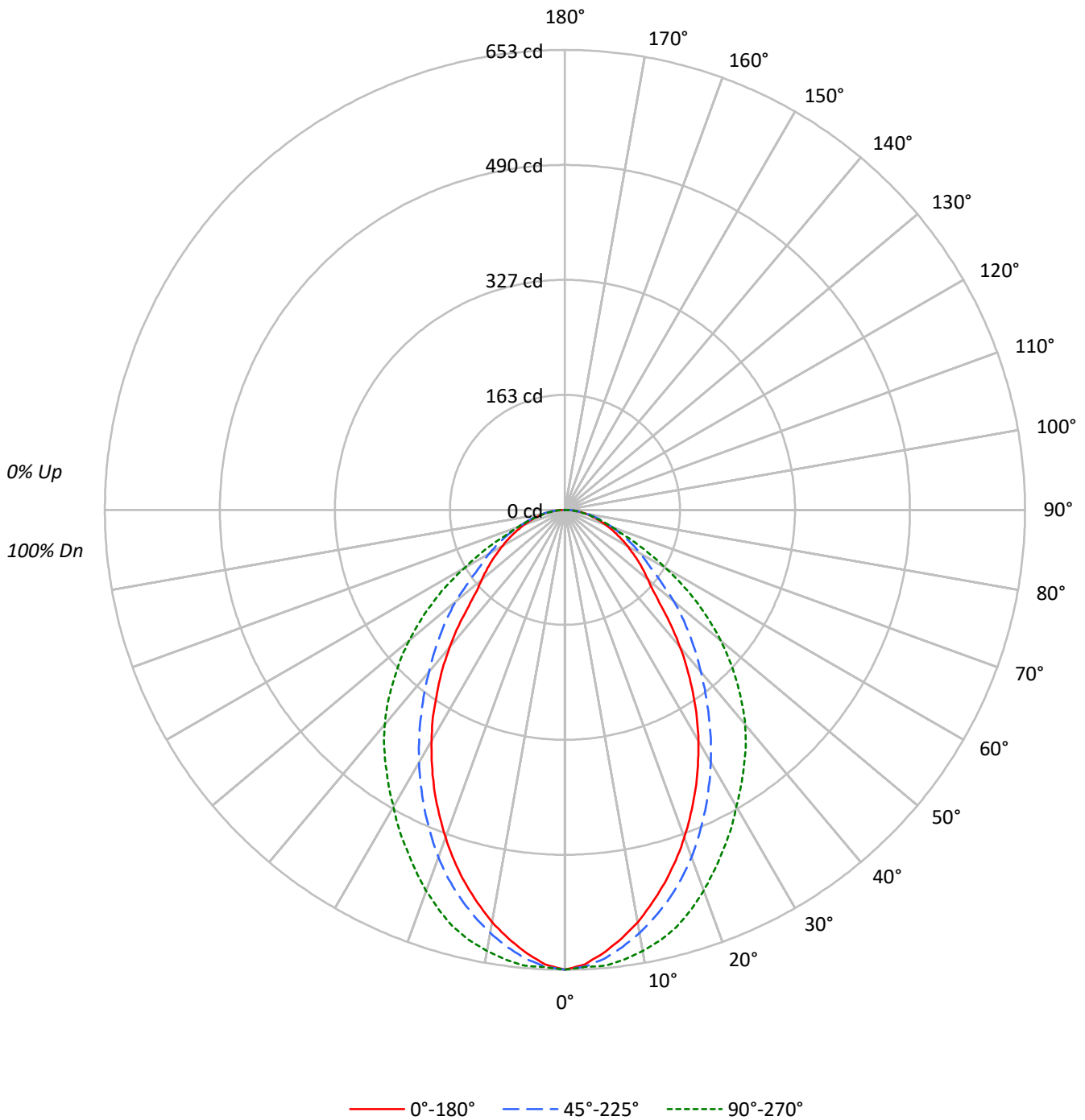
Lumens per Lamp: N/A
Luminaire Lumens: 1179.2 lumens
Efficiency: N/A
Efficacy: 60.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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°	7665	7665	7665
5°	7442	7542	7659
10°	7091	7273	7583
15°	6662	6950	7452
20°	6188	6560	7191
25°	5681	6099	6891
30°	5136	5613	6601
35°	4531	5102	6352
40°	3895	4599	6101
45°	3203	4143	5719
50°	2810	3690	5270
55°	2600	3149	4670
60°	2391	2893	3863
65°	2234	2659	3040
70°	2101	2417	2417
75°	1978	2223	2082
80°	1866	2015	1758
85°	1751	1954	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5719 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	5.1
10°-20°	161.8	13.7
20°-30°	219.4	18.6
30°-40°	229.4	19.5
40°-50°	199.0	16.9
50°-60°	148.0	12.6
60°-70°	95.0	8.1
70°-80°	50.9	4.3
80°-90°	15.4	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°	441.6	37.4
0°-40°	671.0	56.9
0°-60°	1018.0	86.3
0°-90°	1179.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1179.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	631	642	640	644	650	59
15°	548	561	572	595	613	154
25°	438	452	471	502	532	201
35°	316	331	356	401	443	197
45°	193	207	250	303	344	152
55°	127	130	154	198	228	114
65°	80	87	96	102	109	80
75°	44	50	49	47	46	46
85°	13	16	14	12	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	652.8	652.8	652.8	652.8	652.8
2.5°	645.9	655.1	649.0	649.0	649.8
5°	631.4	642.1	639.8	644.4	649.8
7.5°	613.8	625.3	626.0	636.8	644.4
10°	594.7	606.1	610.0	625.3	636.0
12.5°	571.7	584.7	591.6	610.7	626.0
15°	548.0	561.0	571.7	594.7	613.0
17.5°	522.7	535.7	549.5	575.5	595.4
20°	495.2	508.9	525.0	551.0	575.5
22.5°	466.9	481.4	498.2	526.5	554.1
25°	438.5	452.3	470.7	502.1	531.9
27.5°	408.7	423.2	442.4	476.8	510.5
30°	378.8	393.4	414.0	450.8	486.8
32.5°	348.2	362.8	385.0	426.3	465.3
35°	316.1	331.4	355.9	401.0	443.1
37.5°	285.5	300.0	327.6	377.3	421.7
40°	254.1	269.4	300.0	353.6	398.0
42.5°	223.5	238.8	274.8	328.3	372.0
45°	192.9	207.4	249.5	303.1	344.4
47.5°	169.1	179.9	225.8	276.3	317.6
50°	153.8	157.7	202.0	250.3	288.5
52.5°	140.1	143.1	176.0	224.2	258.7
55°	127.0	130.1	153.8	197.5	228.1
57.5°	114.0	117.9	137.0	169.9	197.5
60°	101.8	106.4	123.2	145.4	164.5
62.5°	91.1	96.4	109.4	123.2	136.2
65°	80.4	87.2	95.7	101.8	109.4
67.5°	70.4	78.1	82.7	84.2	85.0
70°	61.2	68.9	70.4	70.4	70.4
72.5°	52.0	60.5	58.9	58.2	57.4
75°	43.6	50.5	49.0	46.7	45.9
77.5°	35.2	41.3	39.0	37.5	35.2
80°	27.6	32.1	29.8	28.3	26.0
82.5°	20.7	23.7	21.4	19.9	17.6
85°	13.0	16.1	14.5	12.2	9.9
87.5°	6.9	9.2	7.7	6.9	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)