

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: P1059280

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059280
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
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-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

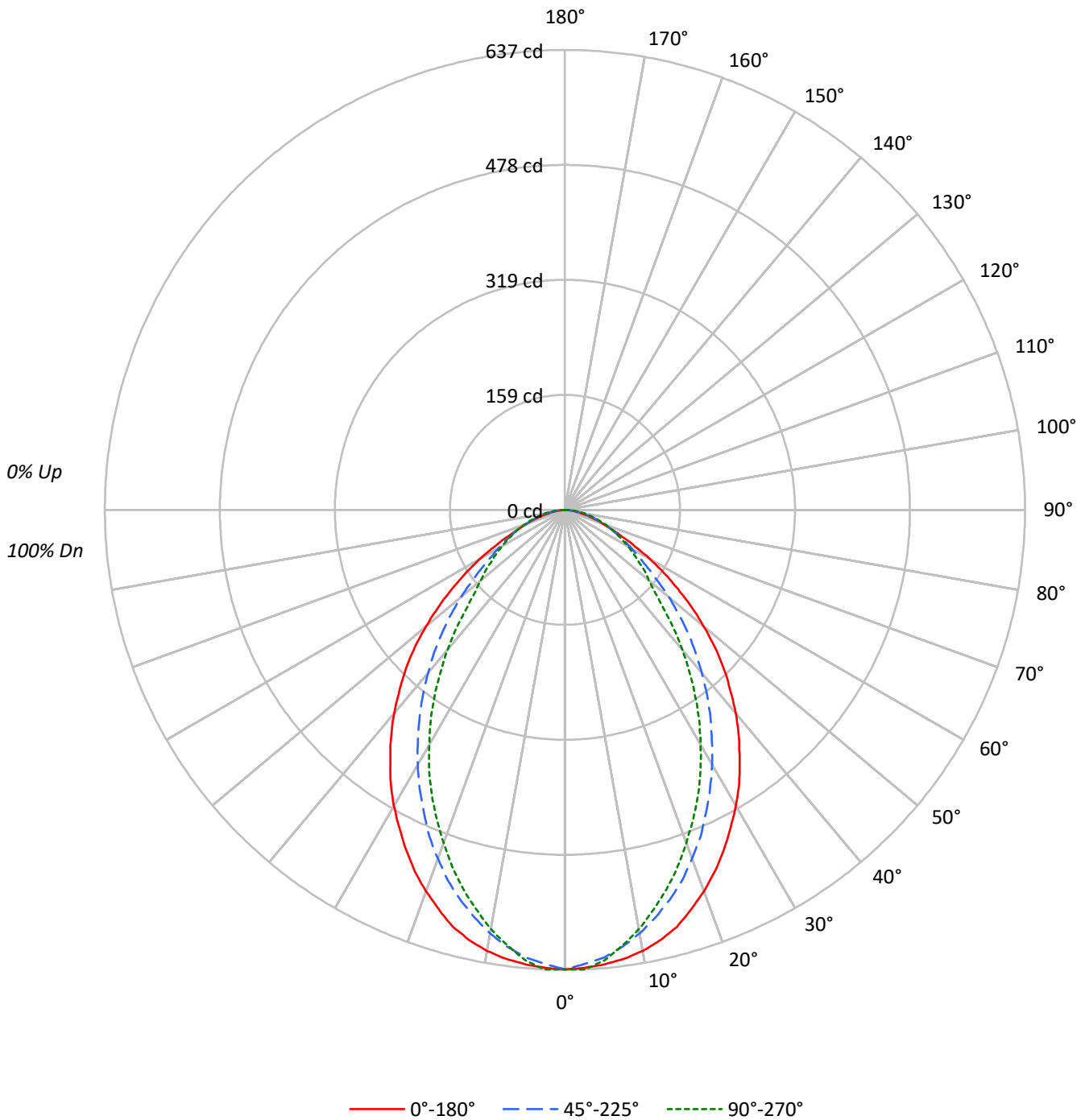
Lumens per Lamp: N/A
Luminaire Lumens: 1113.0 lumens
Efficiency: N/A
Efficacy: 56.8 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7473	7473	7473
5°	7447	7339	7384
10°	7396	7104	7031
15°	7271	6797	6611
20°	7025	6423	6136
25°	6739	5986	5649
30°	6420	5528	5091
35°	6041	5033	4507
40°	5639	4514	3881
45°	5170	3989	3188
50°	4583	3423	2766
55°	3900	2866	2537
60°	3180	2496	2353
65°	2423	2209	2189
70°	1892	1971	2050
75°	1529	1769	1910
80°	1136	1447	1758
85°	620	930	1549

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5170 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.1	5.3
10°-20°	158.9	14.3
20°-30°	216.1	19.4
30°-40°	224.0	20.1
40°-50°	188.9	17.0
50°-60°	134.1	12.0
60°-70°	81.9	7.4
70°-80°	40.8	3.7
80°-90°	9.3	0.8
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°	434.1	39.0
0°-40°	658.0	59.1
0°-60°	981.0	88.1
0°-90°	1113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1113.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	636	636	636	636	636	
5°	632	632	623	626	626	60
15°	598	587	559	549	544	168
25°	520	497	462	445	436	239
35°	421	389	351	327	314	264
45°	311	278	240	207	192	239
55°	190	171	140	128	124	171
65°	87	84	80	80	79	89
75°	34	36	39	40	42	36
85°	5	5	7	10	12	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.4	636.4	636.4	636.4	636.4
2.5°	634.8	635.6	629.5	636.4	637.1
5°	631.8	631.8	622.6	626.4	626.4
7.5°	627.2	625.7	610.4	610.4	608.8
10°	620.3	615.7	595.8	592.0	589.7
12.5°	610.4	602.7	578.2	571.4	566.8
15°	598.1	586.7	559.1	549.2	543.8
17.5°	580.5	569.1	538.5	524.7	518.6
20°	562.2	545.4	514.0	500.2	491.0
22.5°	542.3	520.9	490.3	473.5	463.5
25°	520.1	497.2	462.0	445.2	436.0
27.5°	496.4	471.2	435.2	416.1	406.9
30°	473.5	444.4	407.7	386.3	375.5
32.5°	449.0	416.1	378.6	356.4	345.7
35°	421.4	389.3	351.1	326.6	314.4
37.5°	395.4	362.5	322.8	296.8	283.0
40°	367.9	335.0	294.5	267.7	253.2
42.5°	338.8	307.5	267.7	236.3	222.6
45°	311.3	278.4	240.2	207.3	192.0
47.5°	281.5	250.9	213.4	179.7	169.0
50°	250.9	222.6	187.4	156.8	151.4
52.5°	221.0	197.3	161.4	141.5	139.2
55°	190.5	170.6	140.0	127.7	123.9
57.5°	162.2	147.6	120.1	114.0	112.4
60°	135.4	123.1	106.3	102.5	100.2
62.5°	109.4	102.5	92.5	91.0	89.5
65°	87.2	84.1	79.5	79.5	78.8
67.5°	68.8	68.8	68.1	69.6	68.8
70°	55.1	55.8	57.4	58.9	59.7
72.5°	43.6	45.9	47.4	49.7	50.5
75°	33.7	35.9	39.0	40.5	42.1
77.5°	24.5	26.8	29.8	32.1	33.7
80°	16.8	18.4	21.4	24.5	26.0
82.5°	10.7	11.5	13.8	16.8	18.4
85°	4.6	5.4	6.9	9.9	11.5
87.5°	0.0	0.0	0.8	3.1	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)