

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: P1055633

Luminaire Tested: S123R3DR-S560D835-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055633
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S560D835-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

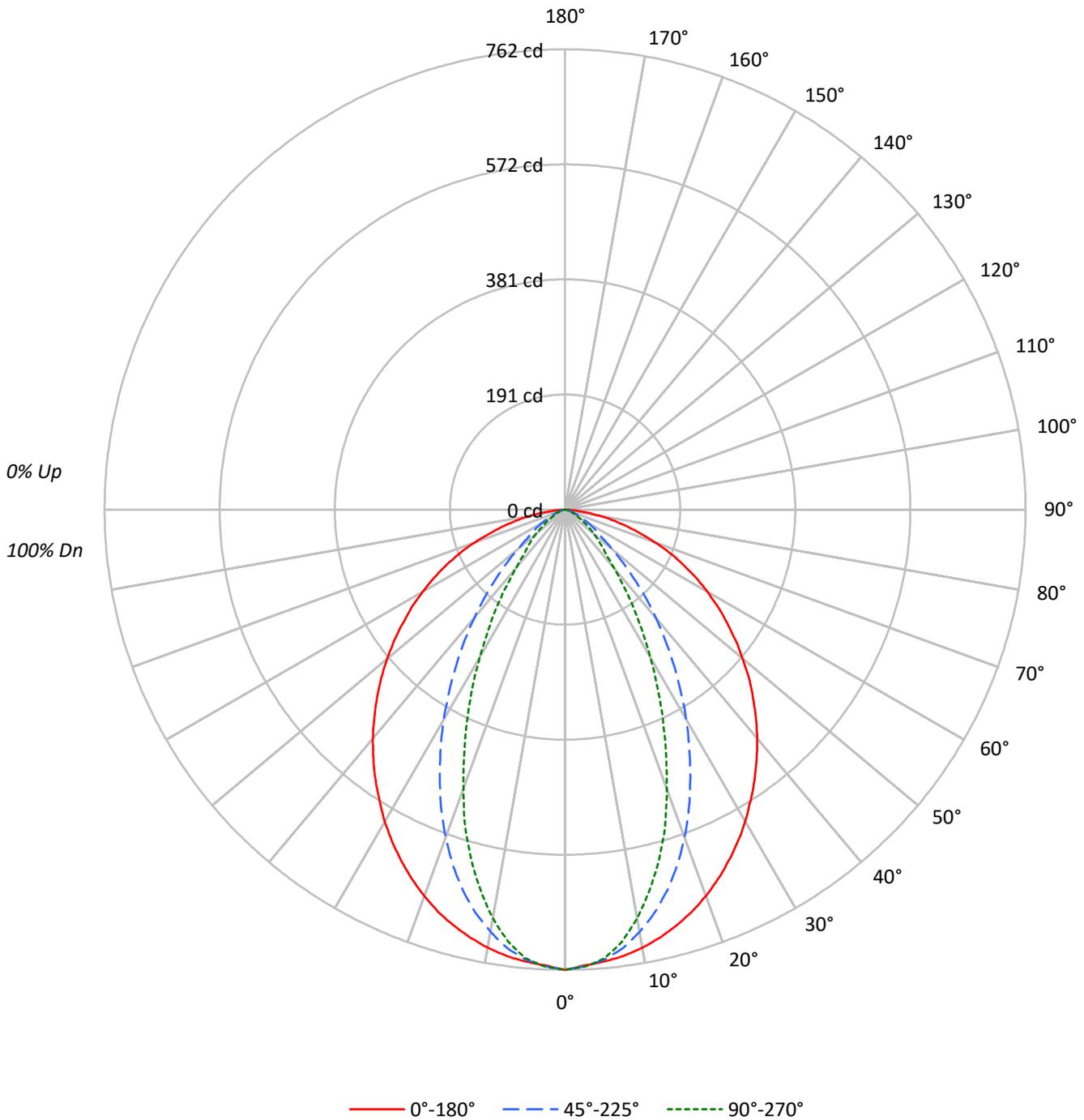
Lumens per Lamp: N/A
Luminaire Lumens: 1059.5 lumens
Efficiency: N/A
Efficacy: 55.5 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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				100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56				56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9186	9186	9186
5°	9089	9054	9028
10°	9018	8691	8417
15°	8897	8148	7490
20°	8737	7412	6310
25°	8531	6522	5091
30°	8304	5589	3920
35°	8046	4613	2901
40°	7786	3672	1978
45°	7499	2745	1490
50°	7193	1909	1165
55°	6876	1396	849
60°	6547	1044	610
65°	6159	702	474
70°	5573	508	381
75°	4812	368	303
80°	3860	299	250
85°	1992	304	194

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7499 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	6.6
10°-20°	183.3	17.3
20°-30°	230.3	21.7
30°-40°	214.5	20.2
40°-50°	164.2	15.5
50°-60°	109.1	10.3
60°-70°	58.8	5.6
70°-80°	24.1	2.3
80°-90°	4.6	0.4
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°	484.1	45.7
0°-40°	698.6	65.9
0°-60°	971.9	91.7
0°-90°	1059.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1059.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	762	762	762	762	762	
5°	751	759	748	745	746	71
15°	713	701	653	614	600	201
25°	641	598	490	409	383	295
35°	547	466	313	222	197	342
45°	440	325	161	95	87	339
55°	327	189	66	46	40	293
65°	216	73	25	18	17	213
75°	103	17	8	7	6	111
85°	14	2	2	2	1	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	761.9	761.9	761.9	761.9	761.9
2.5°	755.4	764.7	756.8	757.5	757.5
5°	751.0	759.0	748.1	745.3	746.0
7.5°	745.3	750.3	732.3	722.9	721.4
10°	736.6	738.0	709.9	693.3	687.5
12.5°	725.8	720.7	683.9	656.4	645.6
15°	712.8	701.2	652.8	614.5	600.1
17.5°	698.3	678.8	617.4	567.6	550.3
20°	681.0	653.5	577.7	515.6	491.8
22.5°	662.2	626.8	535.8	462.2	435.5
25°	641.3	597.9	490.3	408.7	382.7
27.5°	619.6	566.9	445.6	358.2	331.5
30°	596.5	535.1	401.5	309.1	281.6
32.5°	571.2	500.4	356.0	263.6	236.1
35°	546.7	465.8	313.4	221.7	197.1
37.5°	520.7	431.1	272.2	184.9	157.4
40°	494.7	395.7	233.3	148.8	125.7
42.5°	467.2	360.3	196.4	118.4	100.4
45°	439.8	325.0	161.0	94.6	87.4
47.5°	412.3	289.6	130.0	81.6	74.4
50°	383.5	255.6	101.8	69.3	62.1
52.5°	356.0	221.7	79.4	57.0	50.5
55°	327.1	189.2	66.4	46.2	40.4
57.5°	300.4	156.0	54.9	36.1	31.8
60°	271.5	126.4	43.3	28.2	25.3
62.5°	244.1	98.9	33.2	22.4	20.2
65°	215.9	72.9	24.6	18.1	16.6
67.5°	187.8	52.7	18.8	14.4	13.7
70°	158.1	39.7	14.4	11.6	10.8
72.5°	130.0	28.2	10.8	9.4	8.7
75°	103.3	17.3	7.9	7.2	6.5
77.5°	79.4	10.1	5.8	5.8	5.1
80°	55.6	5.8	4.3	4.3	3.6
82.5°	33.9	3.6	2.9	2.9	2.9
85°	14.4	2.2	2.2	2.2	1.4
87.5°	2.2	0.7	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)