

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: P1055644

Luminaire Tested: S123R3DR-S560D930-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055644
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S560D930-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

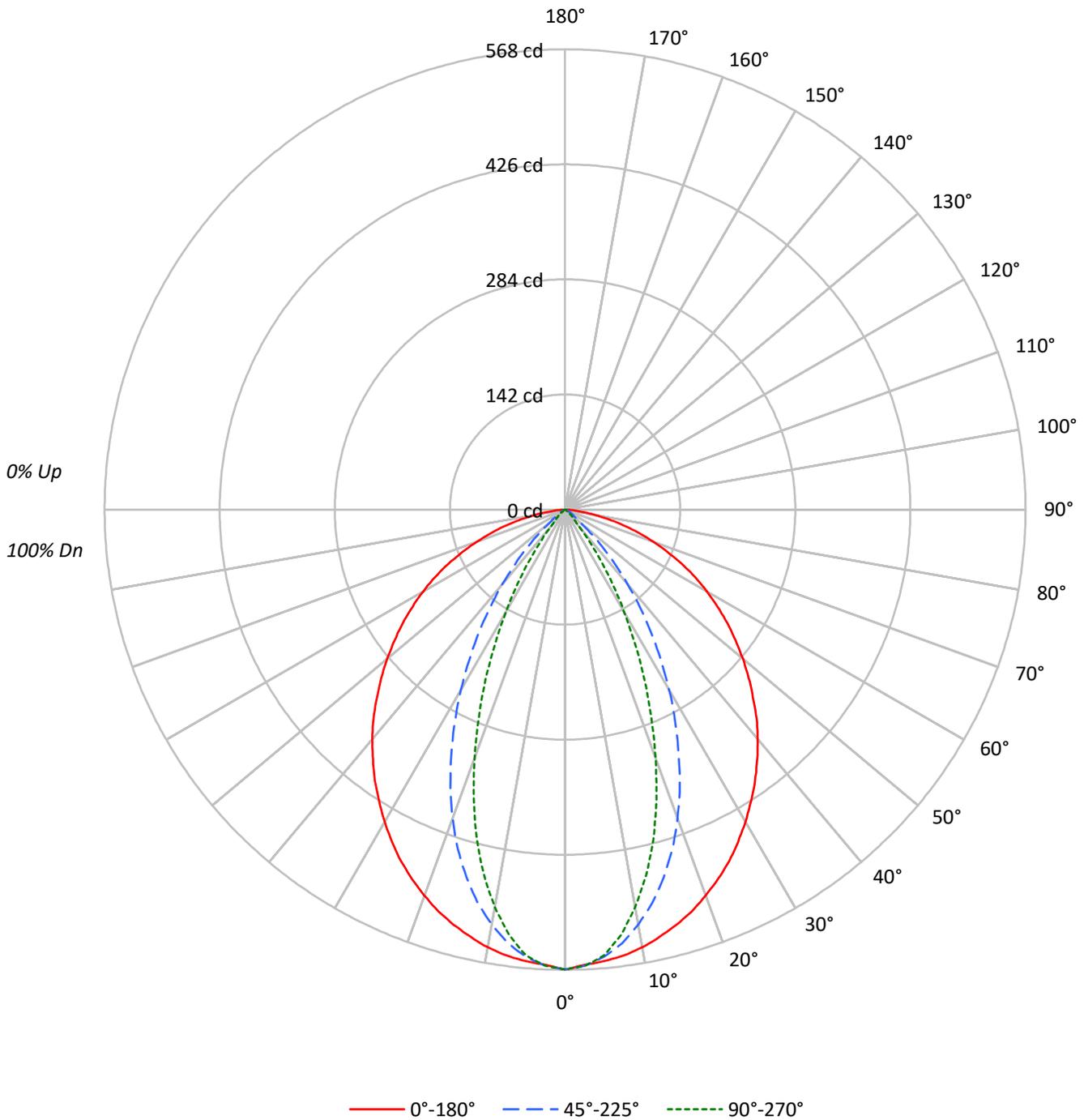
Lumens per Lamp: N/A
Luminaire Lumens: 664.3 lumens
Efficiency: N/A
Efficacy: 34.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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				
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	81	70	63	57	79	69	62	57	67	61	57	66	61	56	64	60	56	54				
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43				
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6843	6843	6843
5°	6769	6705	6684
10°	6717	6365	6098
15°	6622	5864	5255
20°	6504	5205	4185
25°	6368	4410	3086
30°	6196	3574	2024
35°	6014	2721	1110
40°	5819	1881	379
45°	5591	1095	222
50°	5366	431	133
55°	5135	273	61
60°	4868	171	29
65°	4536	83	17
70°	4068	42	21
75°	3456	28	28
80°	2576	42	0
85°	982	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5591 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	7.8
10°-20°	132.1	19.9
20°-30°	157.5	23.7
30°-40°	133.6	20.1
40°-50°	90.8	13.7
50°-60°	56.3	8.5
60°-70°	28.5	4.3
70°-80°	11.6	1.8
80°-90°	1.8	0.3
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°	341.6	51.4
0°-40°	475.2	71.5
0°-60°	622.3	93.7
0°-90°	664.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	664.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	559	565	554	550	552	53
15°	530	517	470	433	421	150
25°	479	434	332	256	232	220
35°	409	328	185	100	75	255
45°	328	215	64	16	13	253
55°	244	108	13	5	3	218
65°	159	26	3	1	1	157
75°	74	5	1	1	1	79
85°	7	0	0	1	0	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.6	567.6	567.6	567.6	567.6
2.5°	562.3	569.9	563.4	562.9	563.4
5°	559.3	564.6	554.0	549.9	552.3
7.5°	555.2	557.6	539.9	529.3	529.3
10°	548.7	547.0	519.9	502.2	498.1
12.5°	539.9	532.8	497.5	469.8	462.2
15°	530.5	516.9	469.8	432.7	421.0
17.5°	519.9	499.3	439.8	391.5	374.5
20°	506.9	479.3	405.7	346.8	326.2
22.5°	493.4	457.5	369.7	300.9	277.9
25°	478.7	433.9	331.5	256.1	232.0
27.5°	462.2	409.2	293.8	213.1	186.6
30°	445.1	383.3	256.7	171.9	145.4
32.5°	426.9	356.2	219.6	134.2	109.5
35°	408.6	327.9	184.9	99.5	75.4
37.5°	389.2	299.7	151.3	68.9	47.7
40°	369.7	272.0	119.5	43.6	24.1
42.5°	349.7	243.2	90.7	21.8	16.5
45°	327.9	214.9	64.2	15.9	13.0
47.5°	307.3	187.8	42.4	13.0	10.0
50°	286.1	160.7	23.0	9.4	7.1
52.5°	264.9	134.8	16.5	7.1	4.7
55°	244.3	108.3	13.0	4.7	2.9
57.5°	223.1	85.4	10.0	2.9	1.8
60°	201.9	63.0	7.1	1.8	1.2
62.5°	180.7	43.6	4.7	1.2	0.6
65°	159.0	26.5	2.9	0.6	0.6
67.5°	136.6	18.3	1.8	0.6	0.6
70°	115.4	13.0	1.2	0.6	0.6
72.5°	94.2	8.2	0.6	0.6	0.0
75°	74.2	4.7	0.6	0.6	0.6
77.5°	54.8	1.8	0.6	0.6	0.0
80°	37.1	0.6	0.6	0.6	0.0
82.5°	20.6	0.0	0.6	0.6	0.0
85°	7.1	0.0	0.0	0.6	0.0
87.5°	0.0	0.0	0.0	0.6	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)