

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: P1055645

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055645
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-S560D930-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

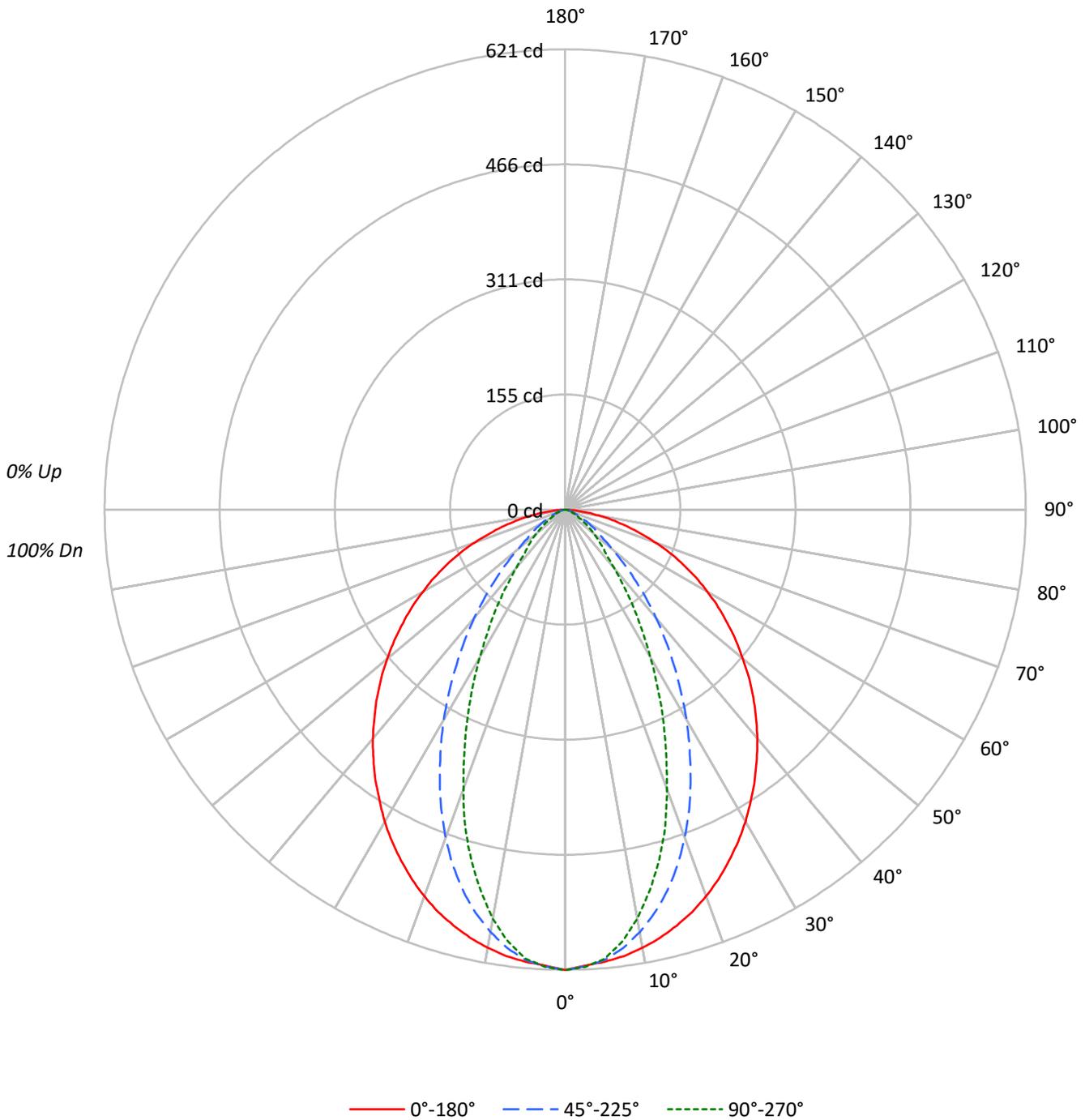
Lumens per Lamp: N/A
Luminaire Lumens: 863.8 lumens
Efficiency: N/A
Efficacy: 45.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	61	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°	7488	7488	7488
5°	7410	7383	7361
10°	7352	7086	6862
15°	7253	6643	6107
20°	7123	6043	5144
25°	6955	5318	4150
30°	6770	4558	3196
35°	6560	3760	2365
40°	6347	2993	1612
45°	6114	2239	1214
50°	5863	1557	949
55°	5606	1139	694
60°	5339	851	497
65°	5021	571	385
70°	4544	416	310
75°	3922	303	247
80°	3145	243	201
85°	1632	249	166

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6114 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	6.6
10°-20°	149.5	17.3
20°-30°	187.8	21.7
30°-40°	174.9	20.2
40°-50°	133.9	15.5
50°-60°	89.0	10.3
60°-70°	48.0	5.6
70°-80°	19.7	2.3
80°-90°	3.8	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°	394.7	45.7
0°-40°	569.6	65.9
0°-60°	792.4	91.7
0°-90°	863.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	863.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	621	621	621	621	621	
5°	612	619	610	608	608	58
15°	581	572	532	501	489	164
25°	523	488	400	333	312	241
35°	446	380	256	181	161	279
45°	359	265	131	77	71	277
55°	267	154	54	38	33	239
65°	176	60	20	15	14	174
75°	84	14	6	6	5	90
85°	12	2	2	2	1	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	621.1	621.1	621.1	621.1	621.1
2.5°	615.8	623.5	617.0	617.6	617.6
5°	612.3	618.8	610.0	607.6	608.2
7.5°	607.6	611.7	597.0	589.3	588.2
10°	600.5	601.7	578.8	565.2	560.5
12.5°	591.7	587.6	557.6	535.2	526.4
15°	581.1	571.7	532.2	501.0	489.3
17.5°	569.3	553.4	503.4	462.8	448.6
20°	555.2	532.8	471.0	420.4	400.9
22.5°	539.9	511.0	436.9	376.8	355.0
25°	522.8	487.5	399.8	333.2	312.0
27.5°	505.2	462.2	363.3	292.0	270.2
30°	486.3	436.3	327.4	252.0	229.6
32.5°	465.7	408.0	290.3	214.9	192.5
35°	445.7	379.8	255.5	180.7	160.7
37.5°	424.5	351.5	222.0	150.7	128.3
40°	403.3	322.6	190.2	121.3	102.4
42.5°	380.9	293.8	160.1	96.6	81.8
45°	358.6	264.9	131.3	77.1	71.2
47.5°	336.2	236.1	106.0	66.5	60.6
50°	312.6	208.4	83.0	56.5	50.6
52.5°	290.3	180.7	64.8	46.5	41.2
55°	266.7	154.3	54.2	37.7	33.0
57.5°	244.9	127.2	44.7	29.4	25.9
60°	221.4	103.0	35.3	23.0	20.6
62.5°	199.0	80.7	27.1	18.3	16.5
65°	176.0	59.5	20.0	14.7	13.5
67.5°	153.1	43.0	15.3	11.8	11.2
70°	128.9	32.4	11.8	9.4	8.8
72.5°	106.0	23.0	8.8	7.7	7.1
75°	84.2	14.1	6.5	5.9	5.3
77.5°	64.8	8.2	4.7	4.7	4.1
80°	45.3	4.7	3.5	3.5	2.9
82.5°	27.7	2.9	2.4	2.4	2.4
85°	11.8	1.8	1.8	1.8	1.2
87.5°	1.8	0.6	0.6	0.6	0.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)