

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: P1055641

Luminaire Tested: S123R3DR-S560D927-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055641
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-S560D927-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

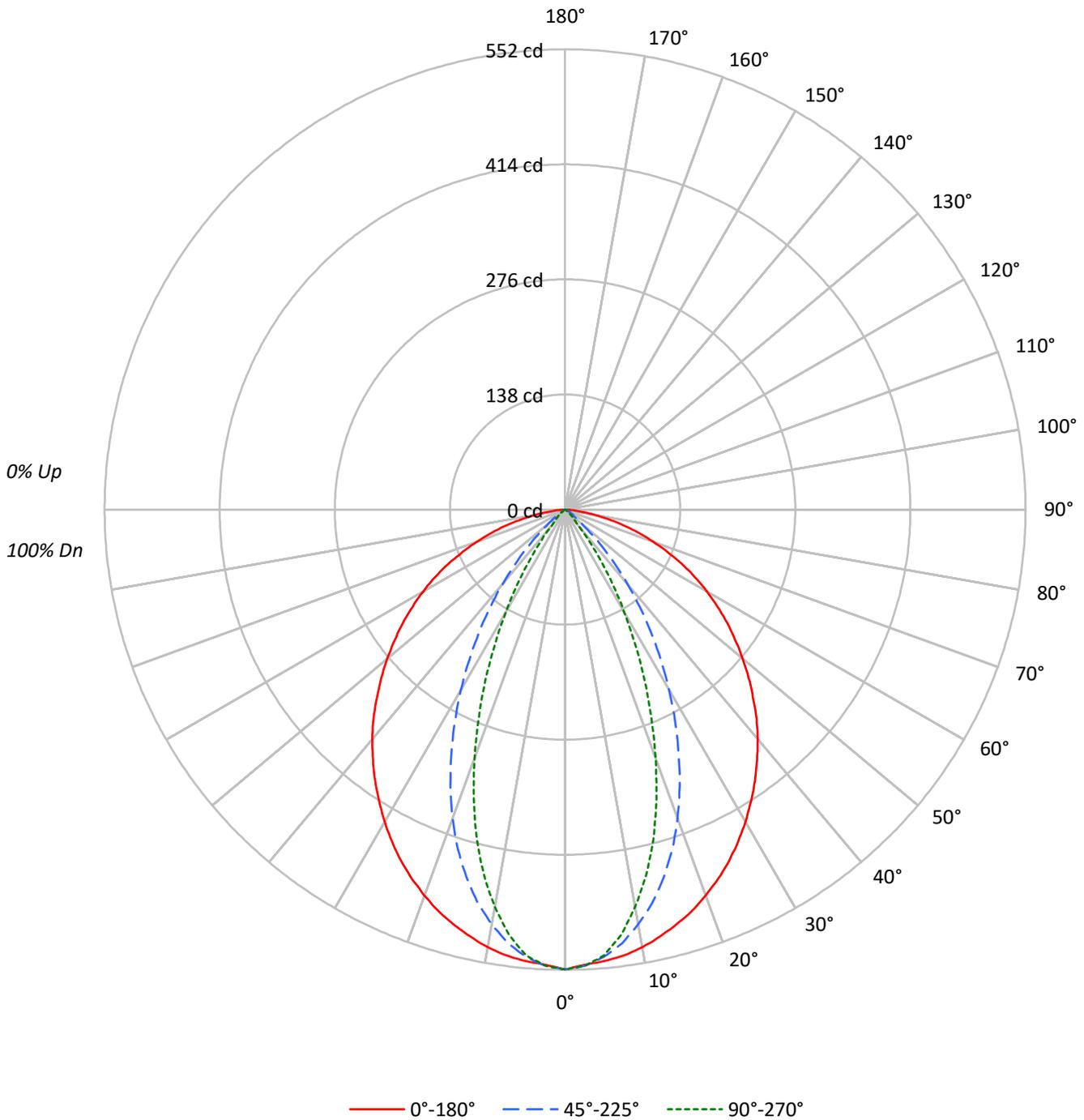
Lumens per Lamp: N/A
Luminaire Lumens: 645.5 lumens
Efficiency: N/A
Efficacy: 33.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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°	6649	6649	6649
5°	6578	6515	6494
10°	6528	6184	5925
15°	6433	5698	5105
20°	6319	5058	4066
25°	6187	4285	2998
30°	6021	3472	1967
35°	5843	2643	1077
40°	5655	1827	370
45°	5432	1064	215
50°	5214	418	129
55°	4990	265	61
60°	4731	166	27
65°	4408	83	17
70°	3952	39	21
75°	3359	28	28
80°	2499	42	0
85°	954	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5432 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.6	7.8
10°-20°	128.3	19.9
20°-30°	153.1	23.7
30°-40°	129.8	20.1
40°-50°	88.2	13.7
50°-60°	54.7	8.5
60°-70°	27.7	4.3
70°-80°	11.3	1.8
80°-90°	1.7	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°	331.9	51.4
0°-40°	461.8	71.5
0°-60°	604.7	93.7
0°-90°	645.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	645.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	544	549	538	534	537	52
15°	515	502	456	420	409	145
25°	465	422	322	249	225	214
35°	397	319	180	97	73	248
45°	319	209	62	15	13	246
55°	237	105	13	5	3	212
65°	154	26	3	1	1	153
75°	72	5	1	1	1	77
85°	7	0	0	1	0	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	551.5	551.5	551.5	551.5	551.5
2.5°	546.3	553.8	547.5	546.9	547.5
5°	543.5	548.6	538.3	534.3	536.6
7.5°	539.5	541.7	524.6	514.3	514.3
10°	533.2	531.4	505.1	488.0	484.0
12.5°	524.6	517.7	483.4	456.5	449.1
15°	515.4	502.3	456.5	420.5	409.0
17.5°	505.1	485.1	427.3	380.4	363.8
20°	492.5	465.7	394.2	336.9	316.9
22.5°	479.4	444.5	359.3	292.3	270.0
25°	465.1	421.6	322.1	248.8	225.4
27.5°	449.1	397.6	285.5	207.1	181.3
30°	432.5	372.4	249.4	167.0	141.3
32.5°	414.7	346.1	213.4	130.4	106.4
35°	397.0	318.6	179.6	96.7	73.2
37.5°	378.1	291.2	147.0	66.9	46.3
40°	359.3	264.3	116.1	42.3	23.5
42.5°	339.8	236.3	88.1	21.2	16.0
45°	318.6	208.8	62.4	15.4	12.6
47.5°	298.6	182.5	41.2	12.6	9.7
50°	278.0	156.2	22.3	9.2	6.9
52.5°	257.4	131.0	16.0	6.9	4.6
55°	237.4	105.3	12.6	4.6	2.9
57.5°	216.8	82.9	9.7	2.9	1.7
60°	196.2	61.2	6.9	1.7	1.1
62.5°	175.6	42.3	4.6	1.1	0.6
65°	154.5	25.7	2.9	0.6	0.6
67.5°	132.7	17.7	1.7	0.6	0.6
70°	112.1	12.6	1.1	0.6	0.6
72.5°	91.5	8.0	0.6	0.6	0.0
75°	72.1	4.6	0.6	0.6	0.6
77.5°	53.2	1.7	0.6	0.6	0.0
80°	36.0	0.6	0.6	0.6	0.0
82.5°	20.0	0.0	0.6	0.6	0.0
85°	6.9	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)