

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: P1055649

Luminaire Tested: S123R3DR-S560D935-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055649
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S560D935-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

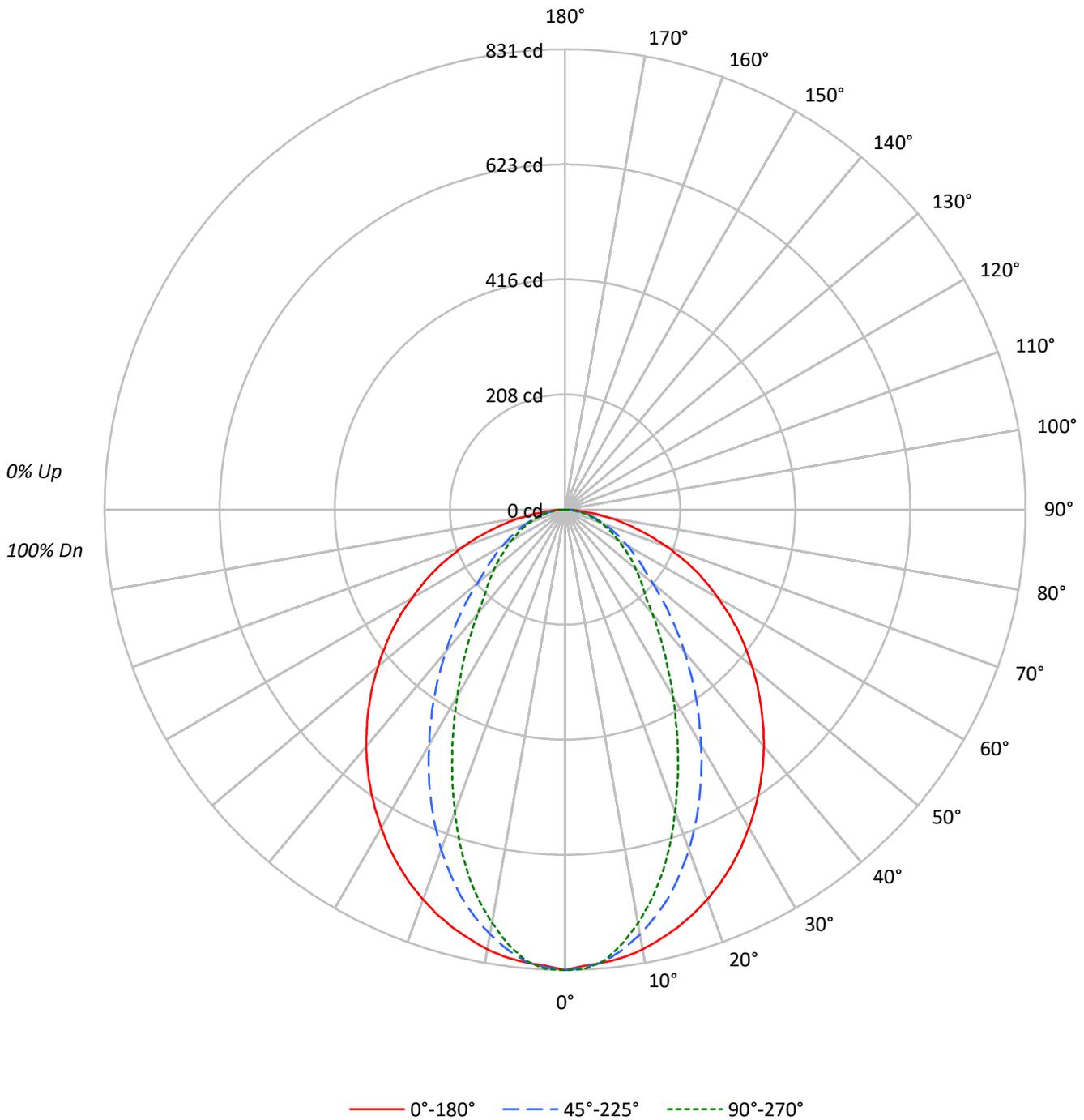
Lumens per Lamp: N/A
Luminaire Lumens: 1457.9 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10022	10022	10022
5°	9932	9911	9888
10°	9872	9538	9279
15°	9756	9033	8475
20°	9612	8385	7450
25°	9446	7634	6411
30°	9236	6830	5418
35°	9013	6040	4576
40°	8787	5274	3846
45°	8523	4547	3393
50°	8257	3871	3114
55°	8011	3449	2875
60°	7675	3118	2684
65°	7360	2856	2519
70°	6860	2630	2369
75°	6140	2432	2231
80°	5270	2243	2069
85°	3693	2061	1978

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.1	5.3
10°-20°	203.9	14.0
20°-30°	268.6	18.4
30°-40°	272.6	18.7
40°-50°	236.9	16.3
50°-60°	185.6	12.7
60°-70°	126.1	8.7
70°-80°	68.3	4.7
80°-90°	18.8	1.3
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°	549.5	37.7
0°-40°	822.1	56.4
0°-60°	1244.7	85.4
0°-90°	1457.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1457.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	821	831	819	811	817	78
15°	782	770	724	688	679	220
25°	710	667	574	502	482	327
35°	612	540	410	332	311	383
45°	500	401	267	206	199	386
55°	381	265	164	140	137	340
65°	258	143	100	90	88	255
75°	132	66	52	48	48	141
85°	27	16	15	14	14	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.3	831.3	831.3	831.3	831.3
2.5°	824.5	835.0	826.9	827.6	830.1
5°	820.7	830.7	818.9	811.4	817.0
7.5°	815.1	822.6	800.8	789.0	790.9
10°	806.4	808.9	779.1	760.4	757.9
12.5°	794.6	790.3	753.0	725.6	721.2
15°	781.6	770.4	723.7	688.3	679.0
17.5°	766.6	748.0	689.5	646.0	631.7
20°	749.2	723.1	653.5	598.1	580.7
22.5°	730.6	697.0	614.3	549.0	531.0
25°	710.1	667.2	573.9	502.4	481.9
27.5°	687.7	637.3	532.9	456.4	433.4
30°	663.4	606.2	490.6	411.6	389.2
32.5°	638.6	573.3	450.2	369.9	348.2
35°	612.4	539.7	410.4	332.0	310.9
37.5°	585.7	505.5	371.8	296.0	276.1
40°	558.3	470.7	335.1	262.4	244.4
42.5°	529.1	435.9	299.7	230.7	217.0
45°	499.9	401.0	266.7	205.8	199.0
47.5°	470.7	365.6	235.6	188.4	182.2
50°	440.2	331.4	206.4	172.2	166.0
52.5°	410.4	297.8	182.2	156.7	152.3
55°	381.1	264.9	164.1	139.9	136.8
57.5°	350.7	232.5	146.1	126.8	123.1
60°	318.3	201.5	129.3	113.2	111.3
62.5°	289.1	172.2	114.4	101.3	99.5
65°	258.0	143.0	100.1	89.5	88.3
67.5°	226.3	118.8	87.0	78.3	77.7
70°	194.6	100.1	74.6	67.8	67.2
72.5°	163.5	82.7	62.8	58.4	57.2
75°	131.8	65.9	52.2	48.5	47.9
77.5°	103.2	51.0	41.7	39.2	38.5
80°	75.9	37.9	32.3	30.5	29.8
82.5°	49.7	26.1	23.0	21.8	21.8
85°	26.7	16.2	14.9	13.7	14.3
87.5°	9.3	6.8	6.8	6.2	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)