

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: P1055652

Luminaire Tested: S123R3DR-S560D940-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055652
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-S560D940-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

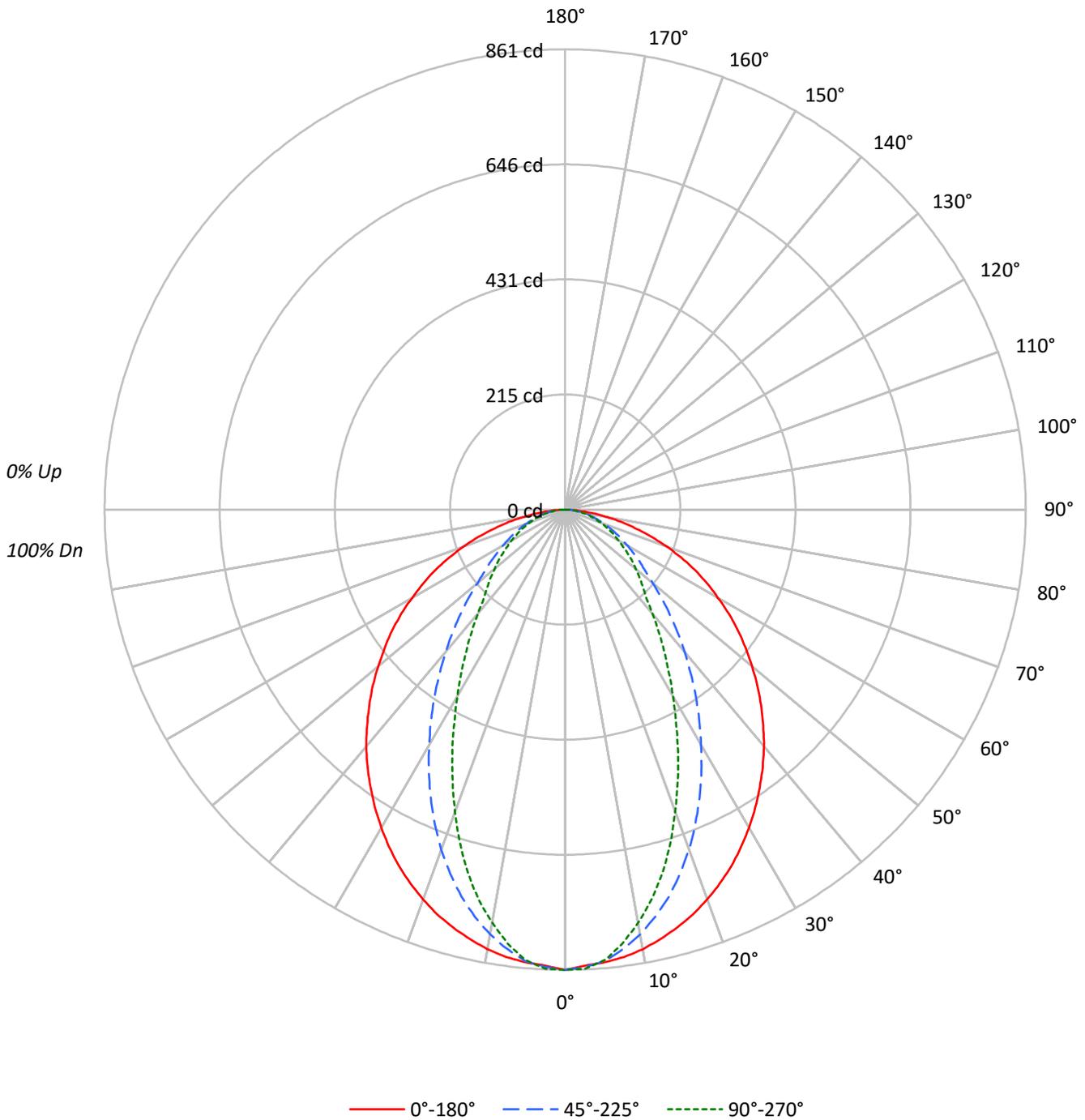
Lumens per Lamp: N/A
Luminaire Lumens: 1510.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	10381	10381	10381
5°	10287	10264	10240
10°	10225	9878	9610
15°	10103	9355	8777
20°	9956	8683	7716
25°	9783	7907	6639
30°	9565	7074	5612
35°	9336	6255	4739
40°	9102	5463	3983
45°	8827	4711	3514
50°	8551	4010	3224
55°	8296	3573	2978
60°	7950	3229	2780
65°	7623	2958	2607
70°	7107	2725	2450
75°	6358	2520	2310
80°	5457	2326	2145
85°	3832	2144	2047

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8827 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	5.3
10°-20°	211.1	14.0
20°-30°	278.2	18.4
30°-40°	282.3	18.7
40°-50°	245.4	16.3
50°-60°	192.3	12.7
60°-70°	130.6	8.7
70°-80°	70.8	4.7
80°-90°	19.5	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°	569.1	37.7
0°-40°	851.4	56.4
0°-60°	1289.1	85.4
0°-90°	1510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1510.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	861	861	861	861	861	
5°	850	860	848	840	846	81
15°	809	798	750	713	703	228
25°	735	691	594	520	499	339
35°	634	559	425	344	322	397
45°	518	415	276	213	206	400
55°	395	274	170	145	142	352
65°	267	148	104	93	91	264
75°	136	68	54	50	50	146
85°	28	17	16	14	15	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	861.0	861.0	861.0	861.0	861.0
2.5°	853.9	864.8	856.4	857.1	859.7
5°	850.0	860.3	848.1	840.3	846.1
7.5°	844.2	851.9	829.4	817.2	819.1
10°	835.2	837.8	806.9	787.5	785.0
12.5°	823.0	818.5	779.8	751.5	747.0
15°	809.4	797.8	749.5	712.8	703.2
17.5°	794.0	774.7	714.1	669.1	654.2
20°	776.0	748.9	676.8	619.5	601.4
22.5°	756.6	721.9	636.2	568.6	549.9
25°	735.4	690.9	594.4	520.3	499.1
27.5°	712.2	660.0	551.9	472.7	448.8
30°	687.1	627.8	508.1	426.3	403.1
32.5°	661.3	593.7	466.2	383.1	360.6
35°	634.3	558.9	425.0	343.9	322.0
37.5°	606.6	523.5	385.1	306.5	285.9
40°	578.3	487.5	347.1	271.7	253.1
42.5°	548.0	451.4	310.4	238.9	224.7
45°	517.7	415.3	276.3	213.1	206.1
47.5°	487.5	378.6	244.1	195.1	188.7
50°	455.9	343.2	213.8	178.4	171.9
52.5°	425.0	308.4	188.7	162.3	157.8
55°	394.7	274.3	170.0	144.9	141.7
57.5°	363.2	240.8	151.3	131.4	127.5
60°	329.7	208.6	133.9	117.2	115.3
62.5°	299.4	178.4	118.5	105.0	103.0
65°	267.2	148.1	103.7	92.7	91.4
67.5°	234.4	123.0	90.2	81.1	80.5
70°	201.6	103.7	77.3	70.2	69.5
72.5°	169.4	85.6	65.0	60.5	59.2
75°	136.5	68.3	54.1	50.2	49.6
77.5°	106.9	52.8	43.1	40.6	39.9
80°	78.6	39.3	33.5	31.6	30.9
82.5°	51.5	27.0	23.8	22.5	22.5
85°	27.7	16.7	15.5	14.2	14.8
87.5°	9.7	7.1	7.1	6.4	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)