

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: P1055637

Luminaire Tested: S123R3DR-S560D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055637
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-S560D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

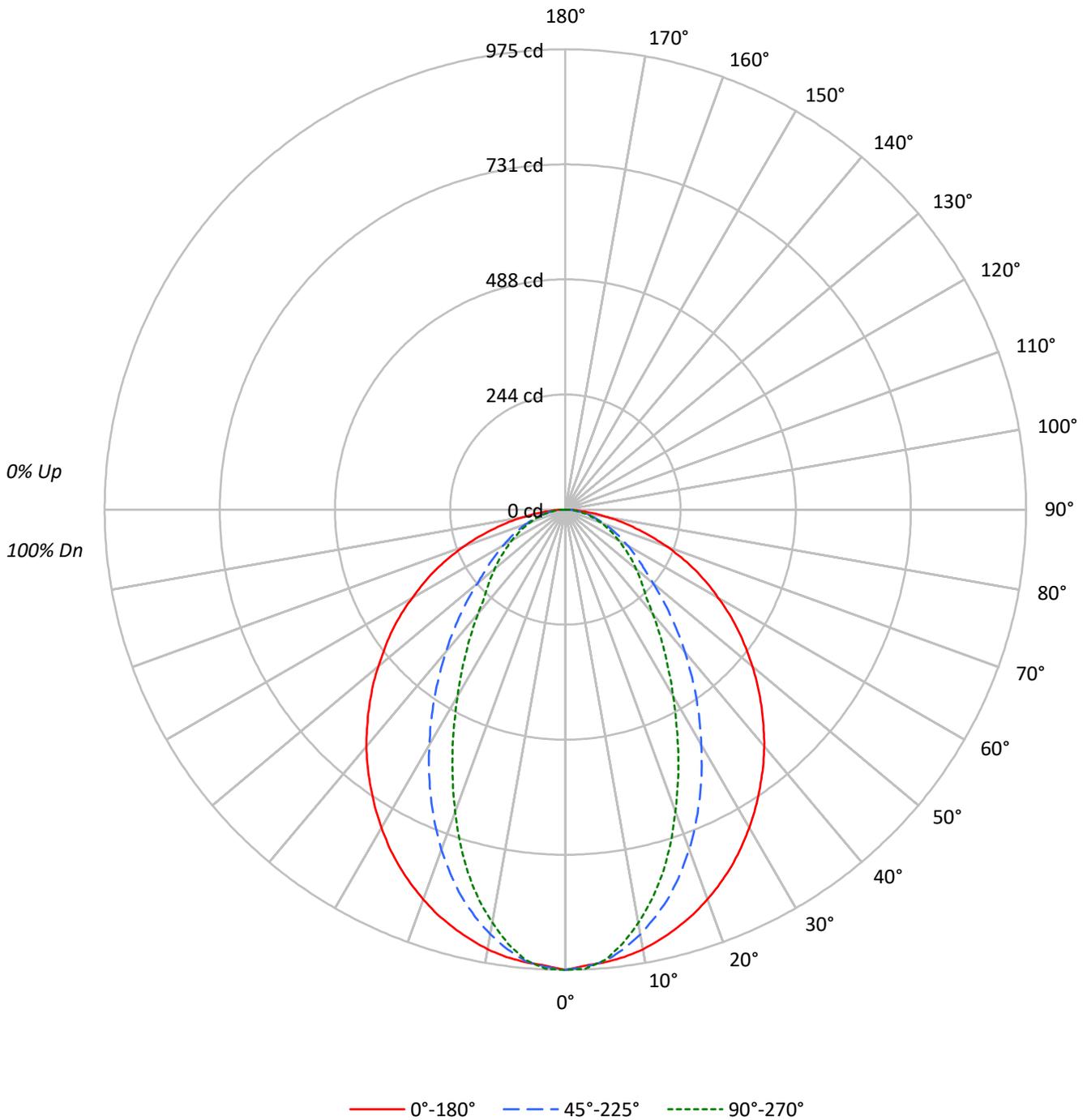
Lumens per Lamp: N/A
Luminaire Lumens: 1710.1 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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°	11755	11755	11755
5°	11650	11623	11598
10°	11580	11187	10883
15°	11442	10596	9940
20°	11275	9834	8739
25°	11079	8954	7519
30°	10832	8010	6355
35°	10572	7084	5366
40°	10307	6187	4511
45°	9997	5335	3980
50°	9684	4541	3652
55°	9396	4046	3372
60°	9004	3658	3147
65°	8633	3349	2955
70°	8048	3084	2778
75°	7202	2855	2618
80°	6179	2631	2430
85°	4344	2421	2324

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9997 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	5.3
10°-20°	239.1	14.0
20°-30°	315.0	18.4
30°-40°	319.7	18.7
40°-50°	277.9	16.3
50°-60°	217.7	12.7
60°-70°	147.9	8.7
70°-80°	80.2	4.7
80°-90°	22.1	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°	644.5	37.7
0°-40°	964.2	56.4
0°-60°	1459.9	85.4
0°-90°	1710.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1710.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	975	975	975	975	975	
5°	963	974	960	952	958	91
15°	917	904	849	807	796	258
25°	833	782	673	589	565	383
35°	718	633	481	389	365	449
45°	586	470	313	241	233	452
55°	447	311	192	164	160	399
65°	303	168	117	105	104	299
75°	155	77	61	57	56	165
85°	31	19	18	16	17	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	975.0	975.0	975.0	975.0	975.0
2.5°	967.0	979.4	969.9	970.7	973.6
5°	962.6	974.3	960.4	951.7	958.3
7.5°	956.1	964.8	939.3	925.4	927.6
10°	945.9	948.8	913.8	891.9	889.0
12.5°	932.0	926.9	883.1	851.1	845.9
15°	916.7	903.6	848.9	807.3	796.4
17.5°	899.2	877.3	808.8	757.7	740.9
20°	878.8	848.1	766.5	701.6	681.1
22.5°	856.9	817.5	720.5	643.9	622.8
25°	832.8	782.5	673.1	589.2	565.2
27.5°	806.6	747.5	625.0	535.3	508.3
30°	778.1	711.0	575.4	482.8	456.5
32.5°	749.0	672.4	528.0	433.9	408.4
35°	718.3	633.0	481.3	389.4	364.6
37.5°	687.0	592.9	436.1	347.1	323.8
40°	654.9	552.1	393.1	307.8	286.6
42.5°	620.6	511.2	351.5	270.6	254.5
45°	586.3	470.4	312.9	241.4	233.4
47.5°	552.1	428.8	276.4	221.0	213.7
50°	516.3	388.7	242.1	202.0	194.7
52.5°	481.3	349.3	213.7	183.8	178.7
55°	447.0	310.7	192.5	164.1	160.4
57.5°	411.3	272.7	171.4	148.8	144.4
60°	373.4	236.3	151.7	132.7	130.5
62.5°	339.1	202.0	134.2	118.9	116.7
65°	302.6	167.7	117.4	105.0	103.6
67.5°	265.5	139.3	102.1	91.9	91.2
70°	228.3	117.4	87.5	79.5	78.8
72.5°	191.8	97.0	73.7	68.6	67.1
75°	154.6	77.3	61.3	56.9	56.2
77.5°	121.1	59.8	48.9	45.9	45.2
80°	89.0	44.5	37.9	35.7	35.0
82.5°	58.3	30.6	27.0	25.5	25.5
85°	31.4	19.0	17.5	16.0	16.8
87.5°	10.9	8.0	8.0	7.3	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)