

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: P1055608

Luminaire Tested: S123R3DR-S340D840-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055608
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-S340D840-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

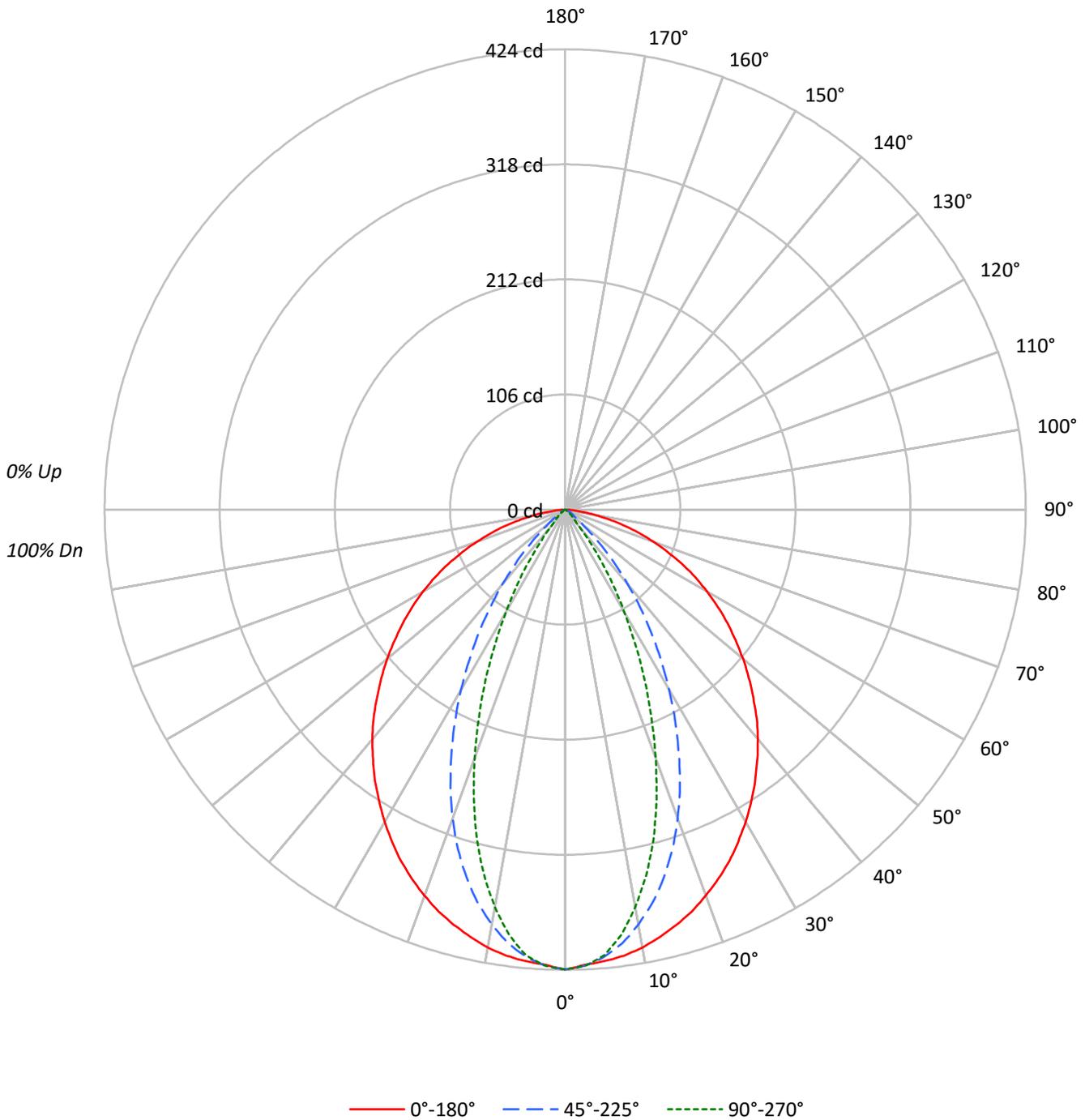
Lumens per Lamp: N/A
Luminaire Lumens: 495.9 lumens
Efficiency: N/A
Efficacy: 39.4 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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	58	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°	5108	5108	5108
5°	5054	5006	4990
10°	5016	4751	4553
15°	4943	4379	3923
20°	4856	3886	3124
25°	4754	3292	2304
30°	4626	2667	1512
35°	4489	2031	829
40°	4344	1404	283
45°	4174	817	165
50°	4006	321	99
55°	3834	204	46
60°	3636	128	22
65°	3386	63	11
70°	3039	32	14
75°	2581	19	19
80°	1923	28	0
85°	733	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4174 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	7.8
10°-20°	98.6	19.9
20°-30°	117.6	23.7
30°-40°	99.8	20.1
40°-50°	67.8	13.7
50°-60°	42.0	8.5
60°-70°	21.3	4.3
70°-80°	8.7	1.7
80°-90°	1.3	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°	255.0	51.4
0°-40°	354.8	71.5
0°-60°	464.6	93.7
0°-90°	495.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	495.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	418	422	414	410	412	40
15°	396	386	351	323	314	112
25°	357	324	248	191	173	164
35°	305	245	138	74	56	191
45°	245	160	48	12	10	189
55°	182	81	10	4	2	163
65°	119	20	2	0	0	117
75°	55	4	0	0	0	59
85°	5	0	0	0	0	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	423.7	423.7	423.7	423.7	423.7
2.5°	419.8	425.5	420.7	420.2	420.7
5°	417.6	421.5	413.6	410.5	412.3
7.5°	414.5	416.3	403.1	395.2	395.2
10°	409.7	408.3	388.1	374.9	371.9
12.5°	403.1	397.8	371.4	350.8	345.0
15°	396.0	385.9	350.8	323.1	314.3
17.5°	388.1	372.7	328.3	292.3	279.6
20°	378.5	357.8	302.9	258.9	243.5
22.5°	368.3	341.5	276.0	224.6	207.5
25°	357.4	323.9	247.5	191.2	173.2
27.5°	345.0	305.5	219.3	159.1	139.3
30°	332.3	286.1	191.6	128.3	108.6
32.5°	318.7	265.9	164.0	100.2	81.8
35°	305.0	244.8	138.0	74.3	56.3
37.5°	290.5	223.7	113.0	51.4	35.6
40°	276.0	203.1	89.2	32.5	18.0
42.5°	261.1	181.5	67.7	16.3	12.3
45°	244.8	160.4	47.9	11.9	9.7
47.5°	229.4	140.2	31.6	9.7	7.5
50°	213.6	120.0	17.1	7.0	5.3
52.5°	197.8	100.7	12.3	5.3	3.5
55°	182.4	80.9	9.7	3.5	2.2
57.5°	166.6	63.7	7.5	2.2	1.3
60°	150.8	47.0	5.3	1.3	0.9
62.5°	134.9	32.5	3.5	0.9	0.4
65°	118.7	19.8	2.2	0.4	0.4
67.5°	102.0	13.6	1.3	0.4	0.4
70°	86.2	9.7	0.9	0.4	0.4
72.5°	70.3	6.2	0.4	0.4	0.0
75°	55.4	3.5	0.4	0.4	0.4
77.5°	40.9	1.3	0.4	0.4	0.0
80°	27.7	0.4	0.4	0.4	0.0
82.5°	15.4	0.0	0.4	0.4	0.0
85°	5.3	0.0	0.0	0.4	0.0
87.5°	0.0	0.0	0.0	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)