

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: P1055569

Luminaire Tested: S123R3DR-S1000D940-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055569
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-S1000D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

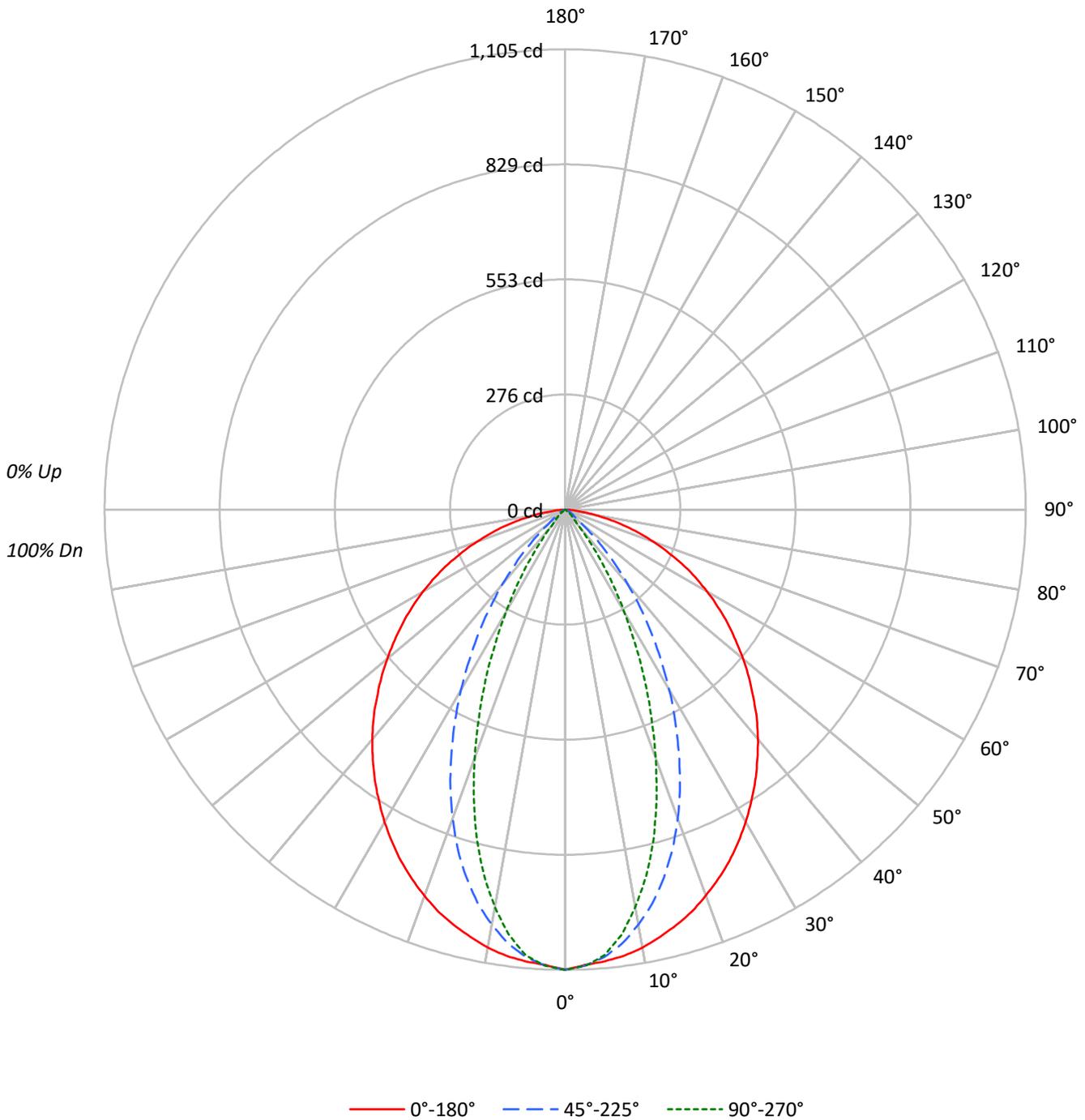
Lumens per Lamp: N/A
Luminaire Lumens: 1292.8 lumens
Efficiency: N/A
Efficacy: 37.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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

TEST NUMBER: P1055569

CATALOG NUMBER: S123R3DR-S1000D940-X4F0-XX-UDD-FLL-B

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°	13319	13319	13319
5°	13175	13050	13009
10°	13075	12387	11868
15°	12887	11413	10226
20°	12658	10129	8145
25°	12393	8582	6006
30°	12060	6955	3940
35°	11705	5296	2159
40°	11325	3661	740
45°	10883	2130	430
50°	10445	838	259
55°	9995	530	120
60°	9476	333	55
65°	8827	163	31
70°	7917	81	39
75°	6726	51	51
80°	5013	76	0
85°	1909	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10883 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.3	7.8
10°-20°	257.0	19.9
20°-30°	306.6	23.7
30°-40°	260.1	20.1
40°-50°	176.8	13.7
50°-60°	109.6	8.5
60°-70°	55.5	4.3
70°-80°	22.6	1.7
80°-90°	3.5	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°	664.9	51.4
0°-40°	925.0	71.5
0°-60°	1211.3	93.7
0°-90°	1292.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1292.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1089	1099	1078	1070	1075	103
15°	1032	1006	914	842	819	291
25°	932	844	645	498	452	429
35°	795	638	360	194	147	497
45°	638	418	125	31	25	493
55°	476	211	25	9	6	425
65°	309	52	6	1	1	306
75°	144	9	1	1	1	154
85°	14	0	0	1	0	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1104.7	1104.7	1104.7	1104.7	1104.7
2.5°	1094.3	1109.2	1096.6	1095.5	1096.6
5°	1088.6	1098.9	1078.3	1070.3	1074.9
7.5°	1080.6	1085.2	1050.8	1030.2	1030.2
10°	1068.0	1064.5	1011.8	977.5	969.4
12.5°	1050.8	1037.0	968.3	914.4	899.5
15°	1032.5	1006.1	914.4	842.2	819.3
17.5°	1011.8	971.7	856.0	762.0	728.8
20°	986.6	932.8	789.5	674.9	634.8
22.5°	960.3	890.4	719.6	585.6	540.9
25°	931.6	844.5	645.1	498.5	451.5
27.5°	899.5	796.4	571.8	414.8	363.3
30°	866.3	746.0	499.6	334.6	283.0
32.5°	830.8	693.3	427.4	261.3	213.1
35°	795.3	638.3	359.8	193.7	146.7
37.5°	757.4	583.3	294.5	134.1	92.8
40°	719.6	529.4	232.6	84.8	47.0
42.5°	680.7	473.3	176.5	42.4	32.1
45°	638.3	418.3	124.9	30.9	25.2
47.5°	598.2	365.5	82.5	25.2	19.5
50°	556.9	312.8	44.7	18.3	13.8
52.5°	515.7	262.4	32.1	13.8	9.2
55°	475.5	210.8	25.2	9.2	5.7
57.5°	434.3	166.2	19.5	5.7	3.4
60°	393.0	122.6	13.8	3.4	2.3
62.5°	351.8	84.8	9.2	2.3	1.1
65°	309.4	51.6	5.7	1.1	1.1
67.5°	265.8	35.5	3.4	1.1	1.1
70°	224.6	25.2	2.3	1.1	1.1
72.5°	183.3	16.0	1.1	1.1	0.0
75°	144.4	9.2	1.1	1.1	1.1
77.5°	106.6	3.4	1.1	1.1	0.0
80°	72.2	1.1	1.1	1.1	0.0
82.5°	40.1	0.0	1.1	1.1	0.0
85°	13.8	0.0	0.0	1.1	0.0
87.5°	0.0	0.0	0.0	1.1	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)