

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: P1055554

Luminaire Tested: S123R3DR-S1000D840-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055554
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-S1000D840-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

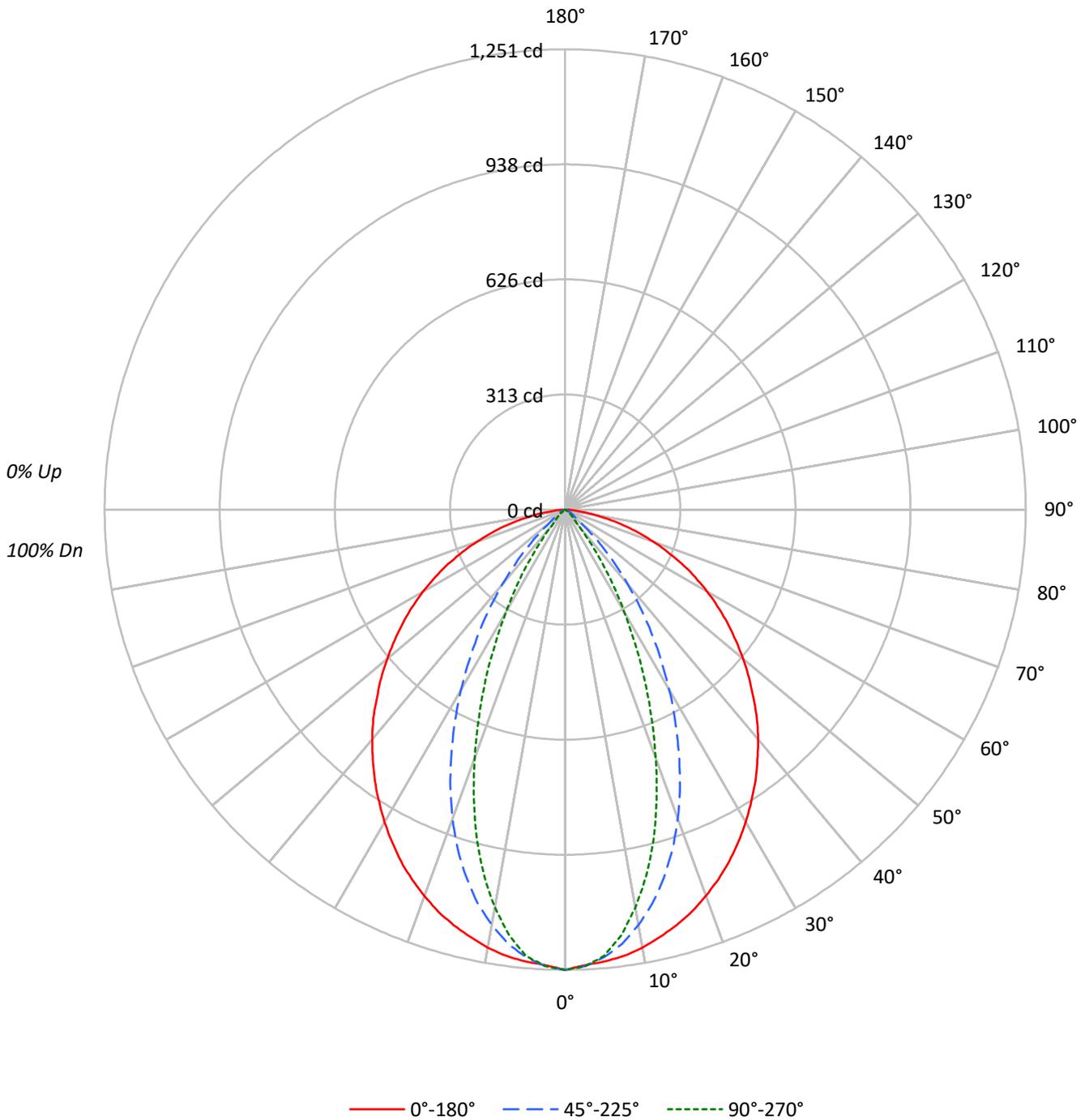
Lumens per Lamp: N/A
Luminaire Lumens: 1464.2 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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	57	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°	15083	15083	15083
5°	14921	14780	14732
10°	14807	14029	13441
15°	14595	12926	11582
20°	14336	11471	9224
25°	14036	9719	6802
30°	13658	7877	4462
35°	13255	5998	2445
40°	12827	4146	837
45°	12324	2413	488
50°	11830	949	293
55°	11321	601	137
60°	10733	376	63
65°	9996	185	37
70°	8968	92	46
75°	7616	61	61
80°	5679	90	0
85°	2158	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12324 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	7.8
10°-20°	291.1	19.9
20°-30°	347.2	23.7
30°-40°	294.5	20.1
40°-50°	200.2	13.7
50°-60°	124.1	8.5
60°-70°	62.9	4.3
70°-80°	25.6	1.8
80°-90°	3.9	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°	753.0	51.4
0°-40°	1047.5	71.5
0°-60°	1371.8	93.7
0°-90°	1464.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1464.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1233	1244	1221	1212	1217	117
15°	1169	1139	1036	954	928	330
25°	1055	956	731	564	511	485
35°	901	723	408	219	166	563
45°	723	474	142	35	29	558
55°	539	239	29	10	6	481
65°	350	58	6	1	1	346
75°	164	10	1	1	1	174
85°	16	0	0	1	0	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1251.0	1251.0	1251.0	1251.0	1251.0
2.5°	1239.3	1256.2	1241.9	1240.6	1241.9
5°	1232.9	1244.5	1221.2	1212.1	1217.3
7.5°	1223.8	1229.0	1190.0	1166.7	1166.7
10°	1209.5	1205.6	1145.9	1107.0	1097.9
12.5°	1190.0	1174.5	1096.6	1035.6	1018.7
15°	1169.3	1139.4	1035.6	953.8	927.9
17.5°	1145.9	1100.5	969.4	863.0	825.4
20°	1117.4	1056.4	894.1	764.4	718.9
22.5°	1087.5	1008.3	815.0	663.1	612.5
25°	1055.1	956.4	730.6	564.5	511.3
27.5°	1018.7	901.9	647.6	469.8	411.4
30°	981.1	844.8	565.8	378.9	320.5
32.5°	940.9	785.1	484.1	295.9	241.4
35°	900.6	722.8	407.5	219.3	166.1
37.5°	857.8	660.5	333.5	151.8	105.1
40°	815.0	599.6	263.4	96.0	53.2
42.5°	770.9	536.0	199.9	48.0	36.3
45°	722.8	473.7	141.5	35.0	28.6
47.5°	677.4	414.0	93.4	28.6	22.1
50°	630.7	354.3	50.6	20.8	15.6
52.5°	584.0	297.2	36.3	15.6	10.4
55°	538.6	238.8	28.6	10.4	6.5
57.5°	491.8	188.2	22.1	6.5	3.9
60°	445.1	138.9	15.6	3.9	2.6
62.5°	398.4	96.0	10.4	2.6	1.3
65°	350.4	58.4	6.5	1.3	1.3
67.5°	301.1	40.2	3.9	1.3	1.3
70°	254.4	28.6	2.6	1.3	1.3
72.5°	207.6	18.2	1.3	1.3	0.0
75°	163.5	10.4	1.3	1.3	1.3
77.5°	120.7	3.9	1.3	1.3	0.0
80°	81.8	1.3	1.3	1.3	0.0
82.5°	45.4	0.0	1.3	1.3	0.0
85°	15.6	0.0	0.0	1.3	0.0
87.5°	0.0	0.0	0.0	1.3	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)