

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: P1055557

Luminaire Tested: S123R3DR-S1000D850-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055557
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-S1000D850-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

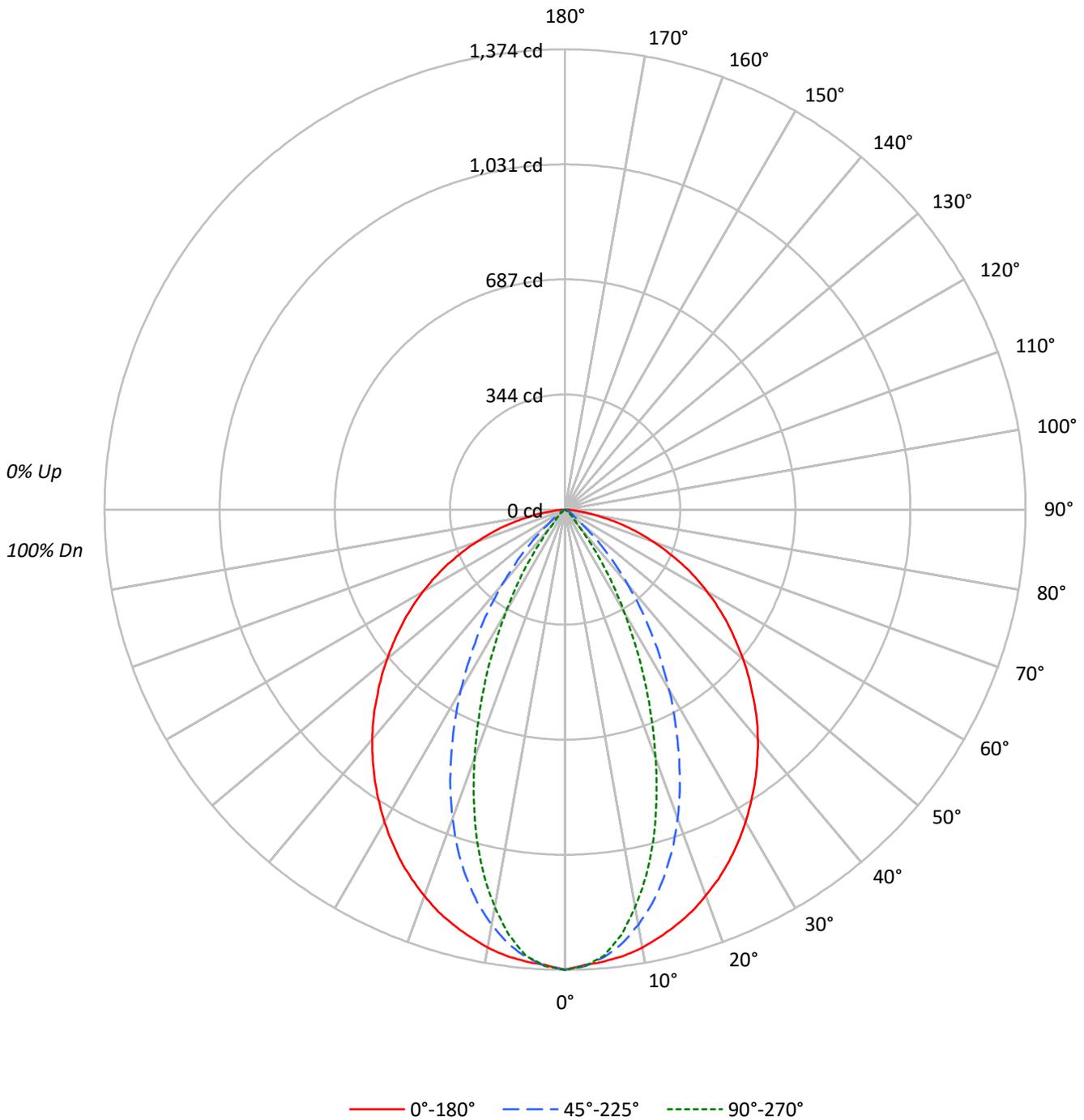
Lumens per Lamp: N/A
Luminaire Lumens: 1607.9 lumens
Efficiency: N/A
Efficacy: 46.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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°	16563	16563	16563
5°	16386	16231	16179
10°	16260	15406	14761
15°	16027	14195	12719
20°	15743	12598	10129
25°	15413	10673	7470
30°	14999	8651	4900
35°	14556	6586	2685
40°	14086	4553	919
45°	13535	2648	535
50°	12991	1043	321
55°	12431	660	149
60°	11786	412	70
65°	10978	203	40
70°	9845	102	49
75°	8366	65	65
80°	6235	97	0
85°	2365	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13535 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.0	7.8
10°-20°	319.7	19.9
20°-30°	381.3	23.7
30°-40°	323.4	20.1
40°-50°	219.8	13.7
50°-60°	136.2	8.5
60°-70°	69.0	4.3
70°-80°	28.1	1.7
80°-90°	4.3	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°	826.9	51.4
0°-40°	1150.3	71.5
0°-60°	1506.4	93.7
0°-90°	1607.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1607.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1354	1367	1341	1331	1337	128
15°	1284	1251	1137	1048	1019	362
25°	1159	1050	802	620	562	533
35°	989	794	448	241	182	618
45°	794	520	155	38	31	613
55°	591	262	31	11	7	528
65°	385	64	7	1	1	380
75°	180	11	1	1	1	191
85°	17	0	0	1	0	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1373.8	1373.8	1373.8	1373.8	1373.8
2.5°	1361.0	1379.5	1363.9	1362.4	1363.9
5°	1353.9	1366.7	1341.1	1331.1	1336.8
7.5°	1343.9	1349.6	1306.8	1281.2	1281.2
10°	1328.2	1323.9	1258.4	1215.6	1205.7
12.5°	1306.8	1289.7	1204.2	1137.3	1118.7
15°	1284.0	1251.3	1137.3	1047.5	1019.0
17.5°	1258.4	1208.5	1064.6	947.7	906.4
20°	1227.0	1160.1	981.9	839.4	789.5
22.5°	1194.3	1107.3	895.0	728.2	672.7
25°	1158.6	1050.3	802.3	619.9	561.5
27.5°	1118.7	990.5	711.1	515.9	451.8
30°	1077.4	927.8	621.4	416.1	352.0
32.5°	1033.2	862.2	531.6	324.9	265.1
35°	989.0	793.8	447.5	240.8	182.4
37.5°	942.0	725.4	366.3	166.7	115.4
40°	895.0	658.4	289.3	105.5	58.4
42.5°	846.5	588.6	219.5	52.7	39.9
45°	793.8	520.2	155.3	38.5	31.4
47.5°	743.9	454.6	102.6	31.4	24.2
50°	692.6	389.1	55.6	22.8	17.1
52.5°	641.3	326.4	39.9	17.1	11.4
55°	591.4	262.2	31.4	11.4	7.1
57.5°	540.1	206.6	24.2	7.1	4.3
60°	488.8	152.5	17.1	4.3	2.9
62.5°	437.5	105.5	11.4	2.9	1.4
65°	384.8	64.1	7.1	1.4	1.4
67.5°	330.6	44.2	4.3	1.4	1.4
70°	279.3	31.4	2.9	1.4	1.4
72.5°	228.0	20.0	1.4	1.4	0.0
75°	179.6	11.4	1.4	1.4	1.4
77.5°	132.5	4.3	1.4	1.4	0.0
80°	89.8	1.4	1.4	1.4	0.0
82.5°	49.9	0.0	1.4	1.4	0.0
85°	17.1	0.0	0.0	1.4	0.0
87.5°	0.0	0.0	0.0	1.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)