

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: P1055632

Luminaire Tested: S123R3DR-S560D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055632
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-S560D835-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

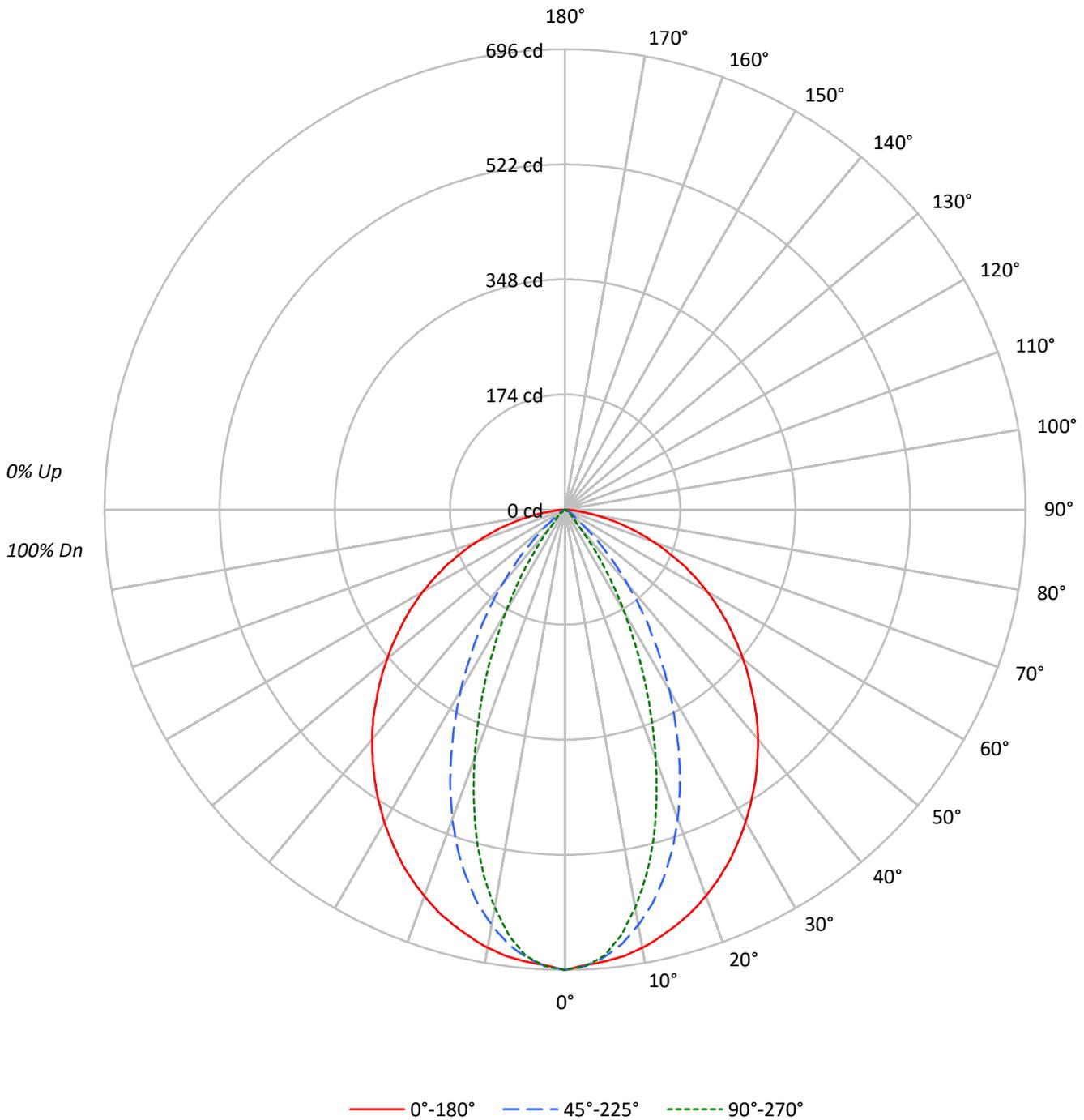
Lumens per Lamp: N/A
Luminaire Lumens: 814.7 lumens
Efficiency: N/A
Efficacy: 42.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1055632

CATALOG NUMBER: S123R3DR-S560D835-X4F0-XX-UDD-FLL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1055632

CATALOG NUMBER: S123R3DR-S560D835-X4F0-XX-UDD-FLL-B

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°	8392	8392	8392
5°	8302	8224	8198
10°	8239	7807	7479
15°	8121	7193	6444
20°	7978	6384	5133
25°	7810	5409	3785
30°	7600	4384	2484
35°	7377	3338	1360
40°	7137	2307	466
45°	6858	1342	271
50°	6584	529	163
55°	6300	334	76
60°	5973	210	34
65°	5563	103	20
70°	4988	49	25
75°	4239	33	33
80°	3159	49	0
85°	1203	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6858 cd/sqm



TEST NUMBER: P1055632

CATALOG NUMBER: S123R3DR-S560D835-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	7.8
10°-20°	162.0	19.9
20°-30°	193.2	23.7
30°-40°	163.9	20.1
40°-50°	111.4	13.7
50°-60°	69.1	8.5
60°-70°	35.0	4.3
70°-80°	14.3	1.7
80°-90°	2.2	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°	419.0	51.4
0°-40°	582.9	71.5
0°-60°	763.3	93.7
0°-90°	814.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	814.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	686	692	680	674	677	65
15°	651	634	576	531	516	183
25°	587	532	407	314	284	270
35°	501	402	227	122	92	313
45°	402	264	79	20	16	311
55°	300	133	16	6	4	268
65°	195	32	4	1	1	193
75°	91	6	1	1	1	97
85°	9	0	0	1	0	15
90°	0	0	0	0	0	



TEST NUMBER: P1055632

CATALOG NUMBER: S123R3DR-S560D835-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.1	696.1	696.1	696.1	696.1
2.5°	689.6	699.0	691.1	690.4	691.1
5°	686.0	692.5	679.5	674.5	677.4
7.5°	681.0	683.9	662.2	649.2	649.2
10°	673.0	670.9	637.7	616.0	610.9
12.5°	662.2	653.5	610.2	576.3	566.9
15°	650.6	634.0	576.3	530.8	516.3
17.5°	637.7	612.4	539.4	480.2	459.3
20°	621.8	587.8	497.6	425.3	400.1
22.5°	605.2	561.1	453.5	369.0	340.9
25°	587.1	532.2	406.6	314.1	284.5
27.5°	566.9	501.9	360.3	261.4	228.9
30°	545.9	470.1	314.9	210.9	178.4
32.5°	523.6	436.9	269.4	164.6	134.3
35°	501.2	402.2	226.8	122.0	92.4
37.5°	477.3	367.6	185.6	84.5	58.5
40°	453.5	333.6	146.6	53.4	29.6
42.5°	429.0	298.2	111.2	26.7	20.2
45°	402.2	263.6	78.7	19.5	15.9
47.5°	377.0	230.4	52.0	15.9	12.3
50°	351.0	197.1	28.2	11.6	8.7
52.5°	325.0	165.4	20.2	8.7	5.8
55°	299.7	132.9	15.9	5.8	3.6
57.5°	273.7	104.7	12.3	3.6	2.2
60°	247.7	77.3	8.7	2.2	1.4
62.5°	221.7	53.4	5.8	1.4	0.7
65°	195.0	32.5	3.6	0.7	0.7
67.5°	167.5	22.4	2.2	0.7	0.7
70°	141.5	15.9	1.4	0.7	0.7
72.5°	115.5	10.1	0.7	0.7	0.0
75°	91.0	5.8	0.7	0.7	0.7
77.5°	67.2	2.2	0.7	0.7	0.0
80°	45.5	0.7	0.7	0.7	0.0
82.5°	25.3	0.0	0.7	0.7	0.0
85°	8.7	0.0	0.0	0.7	0.0
87.5°	0.0	0.0	0.0	0.7	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)