

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: P1059249

Luminaire Tested: S123RDR-S560D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059249
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

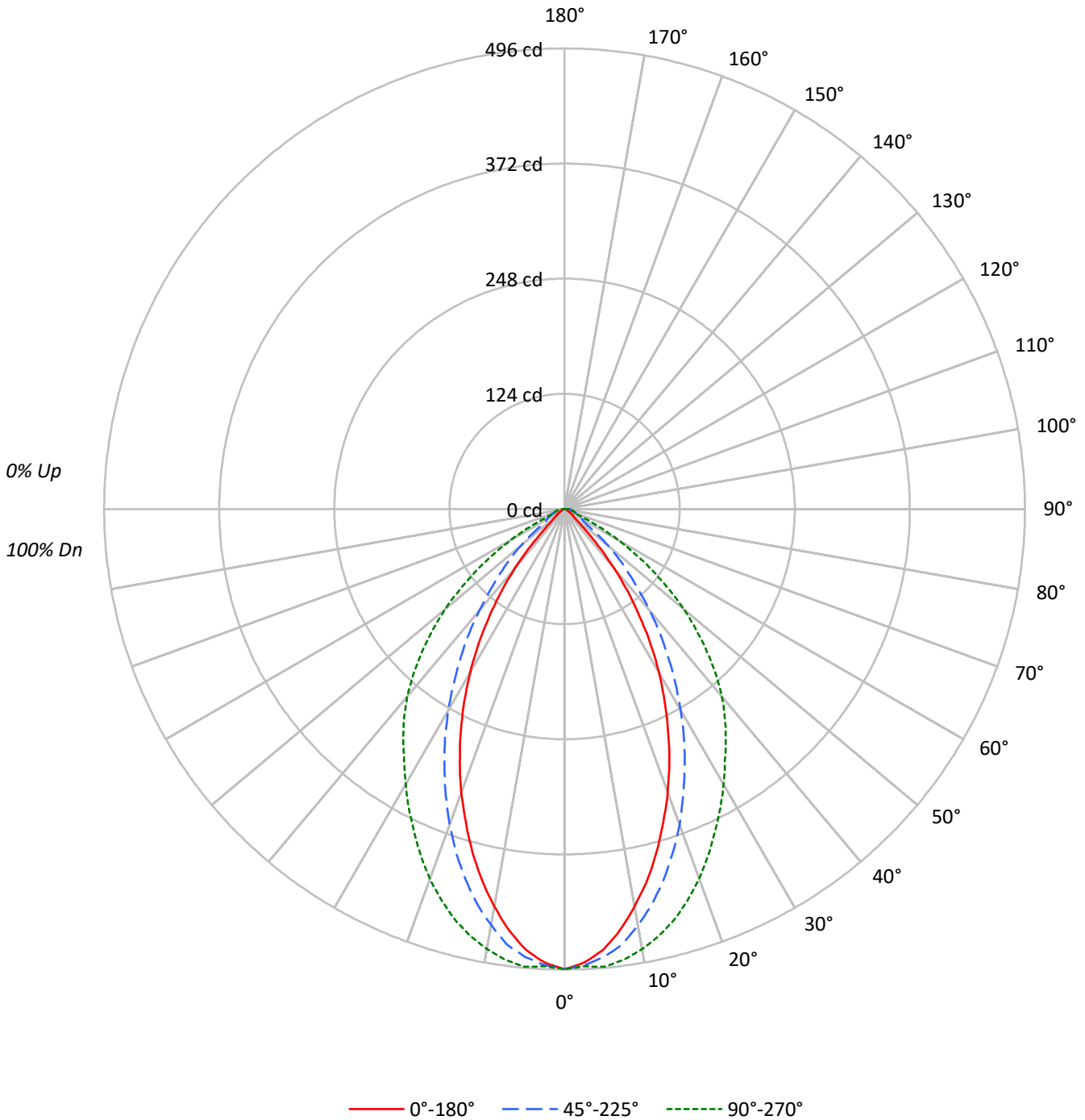
Lumens per Lamp: N/A
Luminaire Lumens: 594.9 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5818	5818	5818
5°	5618	5710	5832
10°	5186	5426	5736
15°	4654	5018	5564
20°	4060	4524	5297
25°	3424	3965	4969
30°	2754	3390	4644
35°	2015	2791	4341
40°	1257	2175	4042
45°	475	1622	3600
50°	227	1118	3069
55°	174	612	2373
60°	122	519	1559
65°	92	453	650
70°	89	426	426
75°	118	445	445
80°	176	527	487
85°	350	876	701

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3600 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	7.6
10°-20°	116.6	19.6
20°-30°	144.4	24.3
30°-40°	129.4	21.8
40°-50°	84.8	14.3
50°-60°	42.5	7.1
60°-70°	16.6	2.8
70°-80°	9.3	1.6
80°-90°	5.8	1.0
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°	306.5	51.5
0°-40°	435.9	73.3
0°-60°	563.2	94.7
0°-90°	594.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	594.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	477	484	484	490	495	44
15°	383	398	413	440	458	107
25°	264	281	306	350	384	121
35°	141	160	195	253	303	88
45°	29	46	98	167	217	27
55°	8	10	30	82	116	8
65°	3	10	16	22	23	3
75°	3	10	10	10	10	3
85°	3	6	6	6	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.5	495.5	495.5	495.5	495.5
2.5°	489.0	496.1	491.6	492.2	492.9
5°	476.6	484.4	484.4	489.6	494.8
7.5°	457.7	466.8	473.3	482.4	489.6
10°	434.9	446.0	455.1	471.4	481.1
12.5°	410.2	423.9	435.6	457.1	470.7
15°	382.8	398.5	412.8	440.1	457.7
17.5°	353.5	369.2	388.0	419.9	441.4
20°	324.9	340.5	362.0	397.8	423.9
22.5°	294.9	311.2	334.0	373.7	404.3
25°	264.3	280.6	306.0	349.6	383.5
27.5°	233.7	250.0	278.7	326.2	363.3
30°	203.1	219.4	250.0	300.8	342.5
32.5°	172.5	190.1	222.0	277.4	321.6
35°	140.6	159.5	194.7	253.3	302.8
37.5°	111.3	128.9	168.6	232.4	283.9
40°	82.0	100.9	141.9	212.3	263.7
42.5°	53.4	73.6	117.8	190.1	240.9
45°	28.6	46.2	97.7	167.3	216.8
47.5°	15.6	25.4	78.8	143.2	192.1
50°	12.4	14.3	61.2	122.4	168.0
52.5°	10.4	11.7	43.6	102.9	141.3
55°	8.5	10.4	29.9	82.0	115.9
57.5°	7.2	9.1	23.4	63.8	90.5
60°	5.2	7.8	22.1	46.9	66.4
62.5°	3.9	8.5	19.5	32.6	43.6
65°	3.3	9.8	16.3	21.5	23.4
67.5°	2.6	10.4	14.3	13.7	13.7
70°	2.6	9.8	12.4	11.7	12.4
72.5°	2.6	10.4	11.1	10.4	11.1
75°	2.6	9.8	9.8	9.8	9.8
77.5°	2.6	9.1	9.1	8.5	8.5
80°	2.6	7.8	7.8	7.8	7.2
82.5°	2.6	7.2	7.2	7.2	5.9
85°	2.6	6.5	6.5	6.5	5.2
87.5°	2.0	5.9	6.5	5.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)