

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: P1059301

Luminaire Tested: S123RDR-S560D935-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D935-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

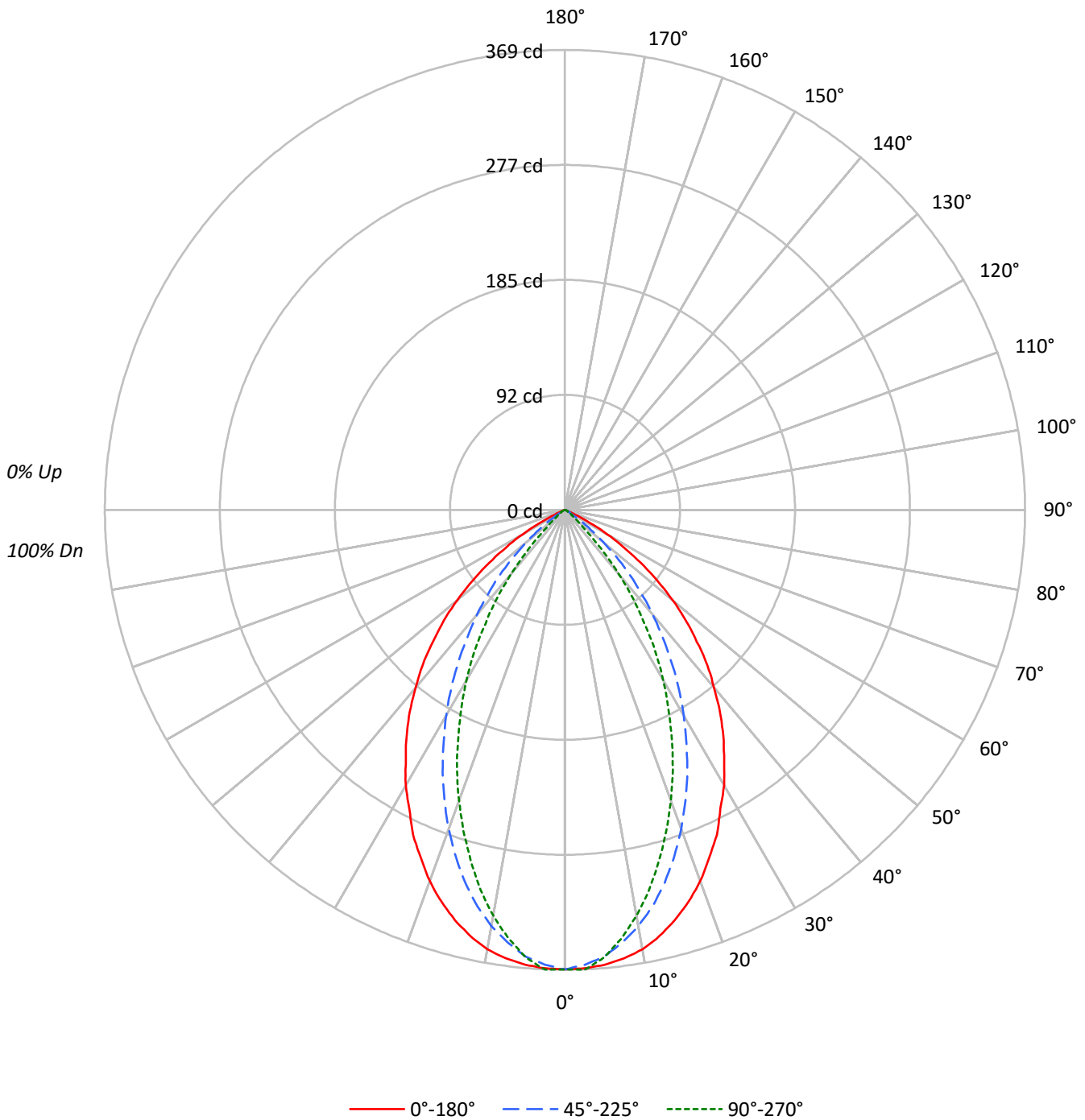
Lumens per Lamp: N/A
Luminaire Lumens: 420.8 lumens
Efficiency: N/A
Efficacy: 21.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4329	4329	4329
5°	4319	4241	4248
10°	4270	4043	3943
15°	4143	3761	3544
20°	3962	3405	3102
25°	3731	3008	2624
30°	3462	2584	2141
35°	3175	2136	1591
40°	2850	1675	1019
45°	2484	1222	423
50°	2061	727	163
55°	1519	303	121
60°	921	113	70
65°	247	67	33
70°	0	21	21
75°	0	0	27
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	8.1
10°-20°	87.6	20.8
20°-30°	109.2	25.9
30°-40°	97.6	23.2
40°-50°	61.6	14.6
50°-60°	25.8	6.1
60°-70°	4.9	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	230.7	54.8
0°-40°	328.4	78.0
0°-60°	415.8	98.8
0°-90°	420.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	420.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	369	369	369	369	369	
5°	366	366	360	361	360	35
15°	341	332	309	296	292	96
25°	288	265	232	212	202	132
35°	222	189	149	122	111	138
45°	150	116	74	39	26	115
55°	74	51	15	6	6	66
65°	9	6	2	1	1	13
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	368.7	368.7	368.7	368.7	368.7
2.5°	368.1	368.7	365.2	368.7	369.3
5°	366.4	365.8	359.8	361.0	360.4
7.5°	362.8	361.0	350.3	348.0	346.8
10°	358.1	353.3	339.1	333.1	330.7
12.5°	350.3	343.8	325.4	315.9	312.3
15°	340.8	332.5	309.4	296.3	291.5
17.5°	329.6	317.7	291.5	277.3	270.2
20°	317.1	300.5	272.5	255.3	248.2
22.5°	302.2	283.8	252.4	234.0	226.2
25°	288.0	264.8	232.2	212.0	202.5
27.5°	270.2	245.8	210.8	190.0	179.9
30°	255.3	227.4	190.6	167.4	157.9
32.5°	237.5	208.4	169.8	144.3	135.4
35°	221.5	189.4	149.0	122.3	111.0
37.5°	204.3	171.0	128.3	100.4	89.7
40°	185.9	152.6	109.3	78.4	66.5
42.5°	169.2	134.2	90.3	58.2	46.3
45°	149.6	116.4	73.6	39.2	25.5
47.5°	131.8	99.8	55.8	22.0	13.7
50°	112.8	82.5	39.8	11.3	8.9
52.5°	93.2	65.9	26.1	7.7	7.1
55°	74.2	51.1	14.8	5.9	5.9
57.5°	55.8	36.8	7.7	4.8	4.2
60°	39.2	24.3	4.8	3.6	3.0
62.5°	22.6	14.3	3.6	2.4	2.4
65°	8.9	6.5	2.4	1.2	1.2
67.5°	0.6	1.8	1.2	0.6	0.6
70°	0.0	0.0	0.6	0.6	0.6
72.5°	0.0	0.0	0.6	0.6	0.6
75°	0.0	0.0	0.0	0.0	0.6
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)