

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: P1059294

Luminaire Tested: S123RDR-S560D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059294
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-S560D930-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, 90 CRI LEDS
Ballast/Driver: -

Summary

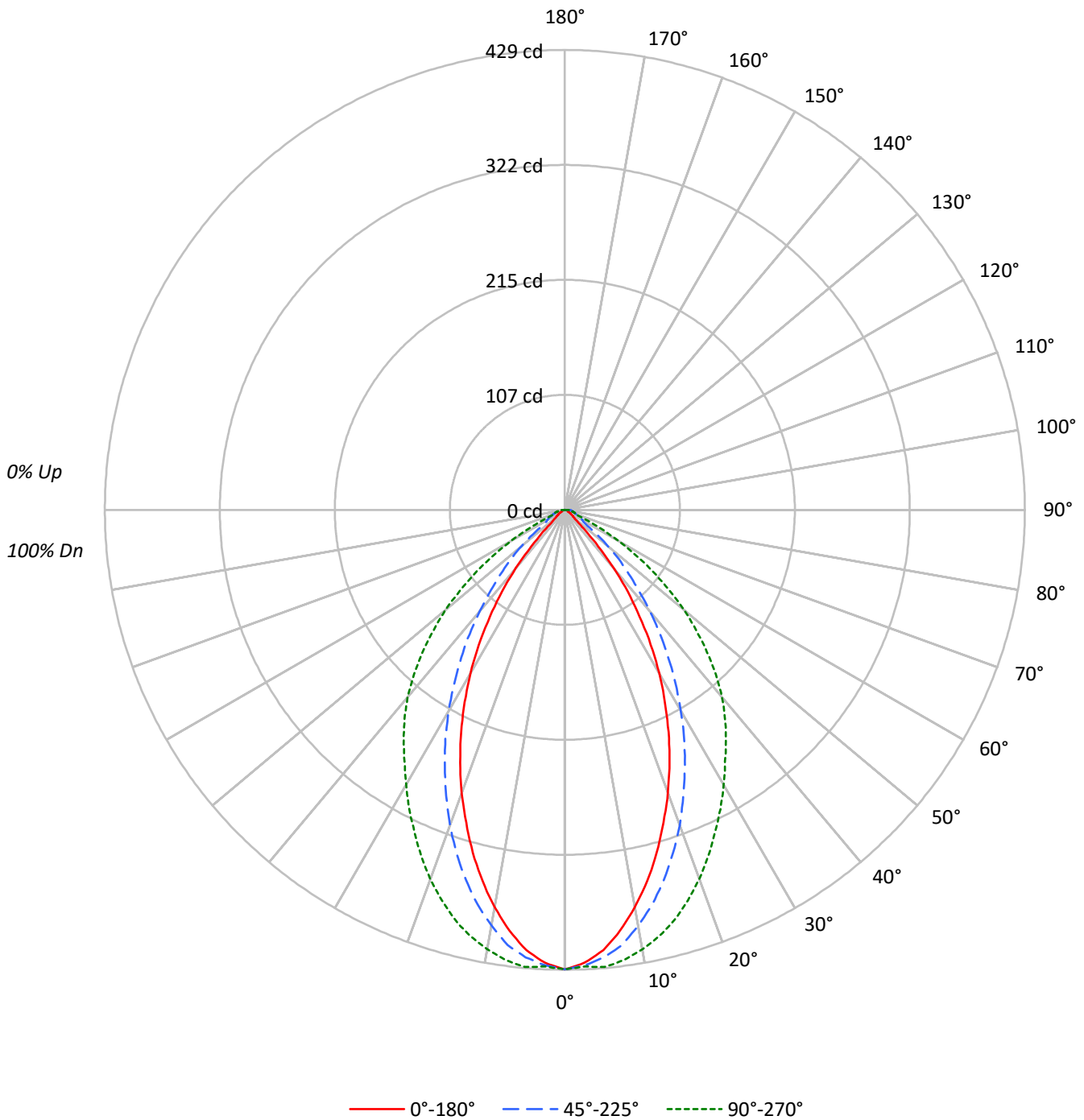
Lumens per Lamp: N/A
Luminaire Lumens: 514.5 lumens
Efficiency: N/A
Efficacy: 26.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	87	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°	5033	5033	5033
5°	4859	4939	5045
10°	4486	4694	4963
15°	4026	4341	4813
20°	3511	3913	4581
25°	2963	3430	4298
30°	2382	2933	4016
35°	1743	2414	3754
40°	1088	1882	3496
45°	412	1403	3114
50°	195	966	2654
55°	149	530	2051
60°	106	449	1348
65°	78	392	564
70°	79	367	367
75°	104	381	381
80°	156	460	419
85°	310	754	606

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3114 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	7.6
10°-20°	100.9	19.6
20°-30°	124.9	24.3
30°-40°	112.0	21.8
40°-50°	73.4	14.3
50°-60°	36.7	7.1
60°-70°	14.3	2.8
70°-80°	8.1	1.6
80°-90°	5.0	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°	265.1	51.5
0°-40°	377.1	73.3
0°-60°	487.2	94.7
0°-90°	514.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	514.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	429	429	429	429	429	
5°	412	419	419	424	428	38
15°	331	345	357	381	396	92
25°	229	243	265	302	332	104
35°	122	138	168	219	262	76
45°	25	40	84	145	188	24
55°	7	9	26	71	100	7
65°	3	8	14	19	20	3
75°	2	8	8	8	8	2
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	428.6	428.6	428.6	428.6	428.6
2.5°	422.9	429.1	425.2	425.8	426.3
5°	412.2	419.0	419.0	423.5	428.0
7.5°	395.9	403.8	409.4	417.3	423.5
10°	376.2	385.8	393.7	407.7	416.2
12.5°	354.8	366.6	376.8	395.4	407.2
15°	331.2	344.7	357.1	380.7	395.9
17.5°	305.8	319.3	335.7	363.3	381.8
20°	281.0	294.5	313.1	344.1	366.6
22.5°	255.1	269.2	288.9	323.3	349.7
25°	228.7	242.7	264.7	302.4	331.7
27.5°	202.2	216.3	241.0	282.2	314.3
30°	175.7	189.8	216.3	260.2	296.2
32.5°	149.2	164.4	192.0	239.9	278.2
35°	121.6	138.0	168.4	219.1	261.9
37.5°	96.3	111.5	145.9	201.1	245.5
40°	71.0	87.3	122.8	183.6	228.1
42.5°	46.2	63.6	101.9	164.4	208.4
45°	24.8	40.0	84.5	144.7	187.5
47.5°	13.5	22.0	68.1	123.9	166.1
50°	10.7	12.4	52.9	105.9	145.3
52.5°	9.0	10.1	37.7	89.0	122.2
55°	7.3	9.0	25.9	71.0	100.2
57.5°	6.2	7.9	20.3	55.2	78.3
60°	4.5	6.8	19.1	40.5	57.4
62.5°	3.4	7.3	16.9	28.2	37.7
65°	2.8	8.4	14.1	18.6	20.3
67.5°	2.3	9.0	12.4	11.8	11.8
70°	2.3	8.4	10.7	10.1	10.7
72.5°	2.3	9.0	9.6	9.0	9.6
75°	2.3	8.4	8.4	8.4	8.4
77.5°	2.3	7.9	7.9	7.3	7.3
80°	2.3	6.8	6.8	6.8	6.2
82.5°	2.3	6.2	6.2	6.2	5.1
85°	2.3	5.6	5.6	5.6	4.5
87.5°	1.7	5.1	5.6	5.1	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)