

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: P1059312

Luminaire Tested: S123RDR-S560D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059312  
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-S560D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

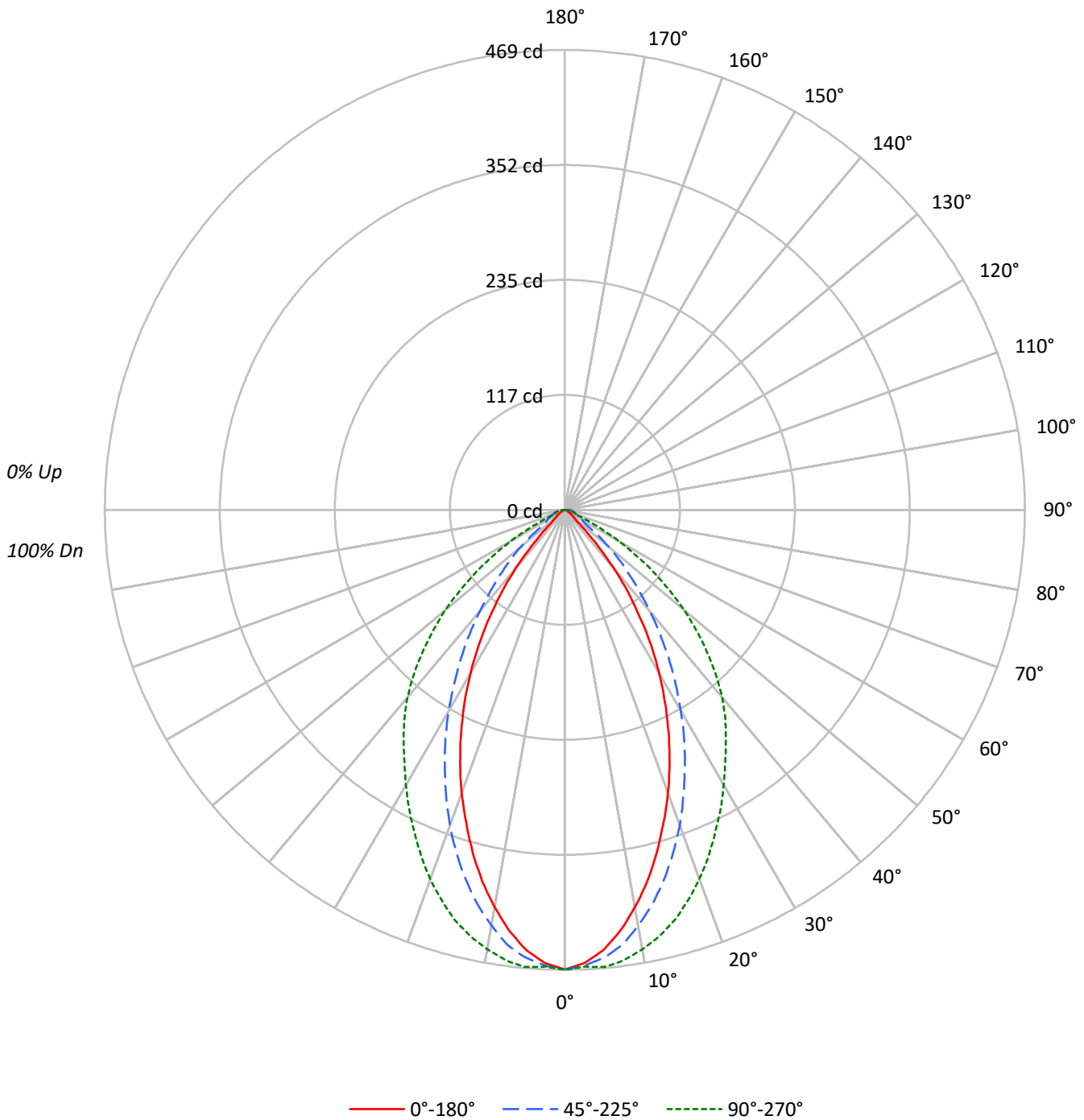
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 562.8 lumens  
Efficiency: N/A  
Efficacy: 28.7 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

TEST NUMBER: P1059312

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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	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°	5504	5504	5504
5°	5315	5402	5518
10°	4907	5134	5428
15°	4403	4747	5264
20°	3841	4280	5011
25°	3240	3751	4701
30°	2606	3207	4393
35°	1907	2640	4106
40°	1190	2059	3825
45°	450	1534	3406
50°	214	1058	2903
55°	164	579	2244
60°	115	491	1475
65°	86	428	617
70°	86	402	402
75°	113	417	417
80°	169	500	460
85°	337	835	660

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3406 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.0	7.6
10°-20°	110.3	19.6
20°-30°	136.6	24.3
30°-40°	122.4	21.8
40°-50°	80.3	14.3
50°-60°	40.2	7.1
60°-70°	15.7	2.8
70°-80°	8.8	1.6
80°-90°	5.5	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°	289.9	51.5
0°-40°	412.4	73.3
0°-60°	532.8	94.7
0°-90°	562.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	562.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	469	469	469	469	469	
5°	451	458	458	463	468	42
15°	362	377	390	416	433	101
25°	250	266	290	331	363	114
35°	133	151	184	240	286	83
45°	27	44	92	158	205	26
55°	8	10	28	78	110	7
65°	3	9	15	20	22	3
75°	2	9	9	9	9	3
85°	2	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°	468.7	468.7	468.7	468.7	468.7
2.5°	462.6	469.4	465.1	465.7	466.3
5°	450.9	458.3	458.3	463.2	468.1
7.5°	433.0	441.6	447.8	456.4	463.2
10°	411.5	421.9	430.6	446.0	455.2
12.5°	388.1	401.0	412.1	432.4	445.3
15°	362.2	377.0	390.5	416.4	433.0
17.5°	334.5	349.3	367.1	397.3	417.6
20°	307.4	322.1	342.5	376.4	401.0
22.5°	279.0	294.4	316.0	353.6	382.5
25°	250.1	265.5	289.5	330.8	362.8
27.5°	221.1	236.5	263.6	308.6	343.7
30°	192.2	207.6	236.5	284.6	324.0
32.5°	163.2	179.9	210.0	262.4	304.3
35°	133.0	150.9	184.2	239.6	286.4
37.5°	105.3	122.0	159.5	219.9	268.6
40°	77.6	95.5	134.3	200.8	249.5
42.5°	50.5	69.6	111.5	179.9	227.9
45°	27.1	43.7	92.4	158.3	205.1
47.5°	14.8	24.0	74.5	135.5	181.7
50°	11.7	13.6	57.9	115.8	158.9
52.5°	9.9	11.1	41.3	97.3	133.7
55°	8.0	9.9	28.3	77.6	109.6
57.5°	6.8	8.6	22.2	60.4	85.6
60°	4.9	7.4	20.9	44.3	62.8
62.5°	3.7	8.0	18.5	30.8	41.3
65°	3.1	9.2	15.4	20.3	22.2
67.5°	2.5	9.9	13.6	12.9	12.9
70°	2.5	9.2	11.7	11.1	11.7
72.5°	2.5	9.9	10.5	9.9	10.5
75°	2.5	9.2	9.2	9.2	9.2
77.5°	2.5	8.6	8.6	8.0	8.0
80°	2.5	7.4	7.4	7.4	6.8
82.5°	2.5	6.8	6.8	6.8	5.5
85°	2.5	6.2	6.2	6.2	4.9
87.5°	1.8	5.5	6.2	5.5	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)