

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: P1059253

Luminaire Tested: S123RDR-S560D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059253  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S560D830-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

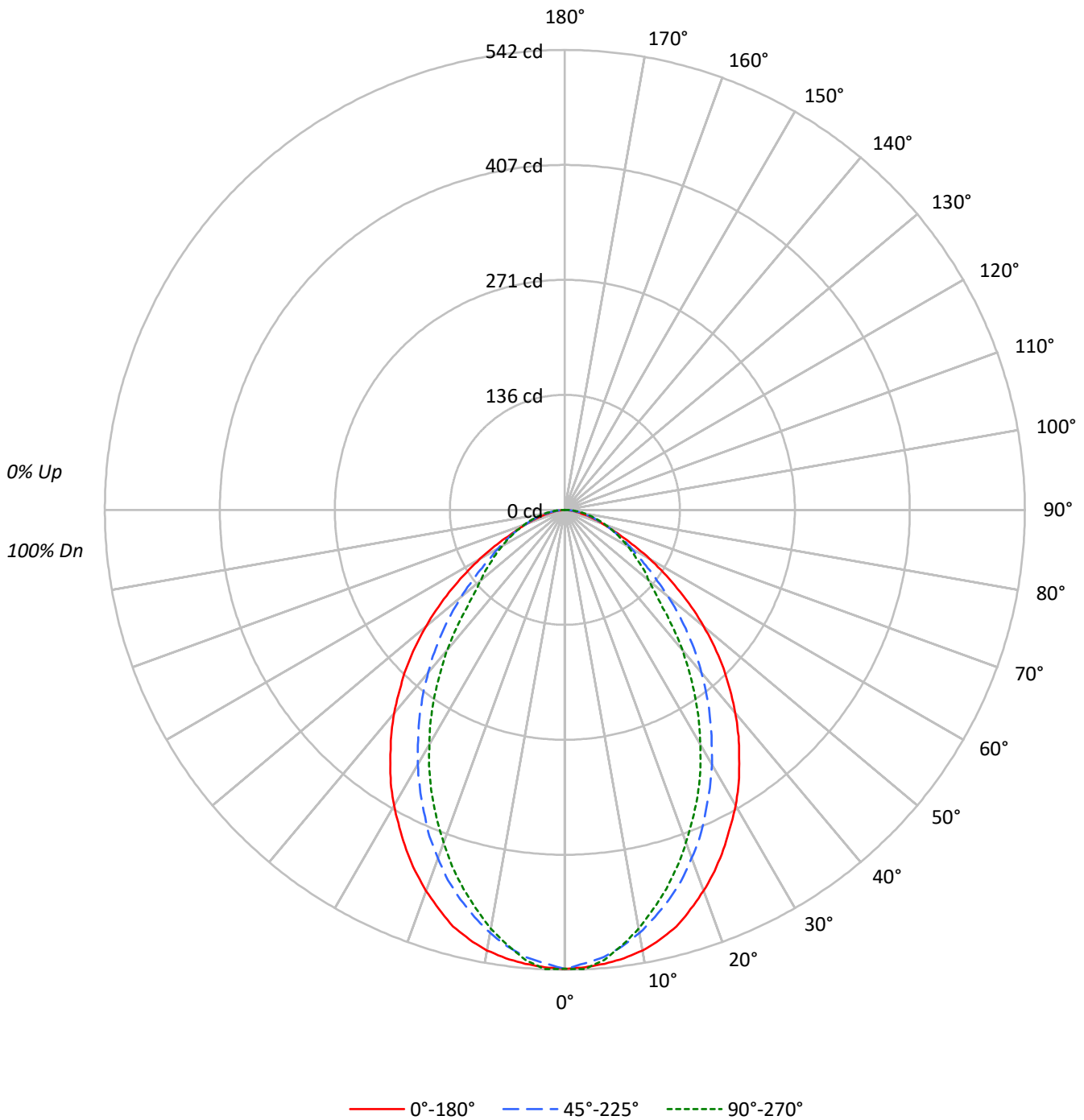
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 946.0 lumens  
Efficiency: N/A  
Efficacy: 48.3 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6351	6351	6351
5°	6330	6238	6276
10°	6286	6038	5976
15°	6179	5777	5619
20°	5971	5458	5215
25°	5727	5087	4800
30°	5456	4698	4328
35°	5135	4278	3830
40°	4793	3837	3299
45°	4394	3389	2710
50°	3895	2910	2351
55°	3314	2436	2156
60°	2703	2123	2001
65°	2059	1878	1862
70°	1607	1675	1741
75°	1298	1506	1624
80°	967	1231	1494
85°	525	795	1320

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4394 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.2	5.3
10°-20°	135.1	14.3
20°-30°	183.6	19.4
30°-40°	190.4	20.1
40°-50°	160.6	17.0
50°-60°	114.0	12.0
60°-70°	69.7	7.4
70°-80°	34.7	3.7
80°-90°	7.9	0.8
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°	368.9	39.0
0°-40°	559.3	59.1
0°-60°	833.8	88.1
0°-90°	946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	946.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	537	537	529	532	532	51
15°	508	499	475	467	462	143
25°	442	422	393	378	370	203
35°	358	331	298	278	267	224
45°	265	237	204	176	163	203
55°	162	145	119	109	105	145
65°	74	72	68	68	67	76
75°	29	31	33	34	36	31
85°	4	5	6	8	10	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	540.9	540.9	540.9	540.9	540.9
2.5°	539.6	540.2	535.0	540.9	541.5
5°	537.0	537.0	529.2	532.4	532.4
7.5°	533.1	531.8	518.8	518.8	517.5
10°	527.2	523.3	506.4	503.1	501.2
12.5°	518.8	512.2	491.4	485.6	481.7
15°	508.3	498.6	475.2	466.7	462.2
17.5°	493.4	483.6	457.6	445.9	440.7
20°	477.8	463.5	436.8	425.1	417.3
22.5°	460.9	442.7	416.7	402.4	393.9
25°	442.0	422.5	392.6	378.3	370.5
27.5°	421.9	400.4	369.9	353.6	345.8
30°	402.4	377.7	346.5	328.3	319.2
32.5°	381.6	353.6	321.8	302.9	293.8
35°	358.2	330.9	298.4	277.6	267.2
37.5°	336.1	308.1	274.3	252.2	240.5
40°	312.7	284.7	250.3	227.5	215.2
42.5°	288.0	261.3	227.5	200.9	189.2
45°	264.6	236.6	204.1	176.2	163.2
47.5°	239.2	213.2	181.4	152.8	143.7
50°	213.2	189.2	159.3	133.3	128.7
52.5°	187.9	167.7	137.2	120.3	118.3
55°	161.9	145.0	119.0	108.6	105.3
57.5°	137.8	125.5	102.1	96.9	95.6
60°	115.1	104.7	90.4	87.1	85.2
62.5°	93.0	87.1	78.7	77.4	76.1
65°	74.1	71.5	67.6	67.6	67.0
67.5°	58.5	58.5	57.9	59.2	58.5
70°	46.8	47.5	48.8	50.1	50.7
72.5°	37.1	39.0	40.3	42.3	42.9
75°	28.6	30.6	33.2	34.5	35.8
77.5°	20.8	22.8	25.4	27.3	28.6
80°	14.3	15.6	18.2	20.8	22.1
82.5°	9.1	9.8	11.7	14.3	15.6
85°	3.9	4.6	5.9	8.5	9.8
87.5°	0.0	0.0	0.7	2.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)