

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: P1059316

Luminaire Tested: S123RDR-S560D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059316
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-S560D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

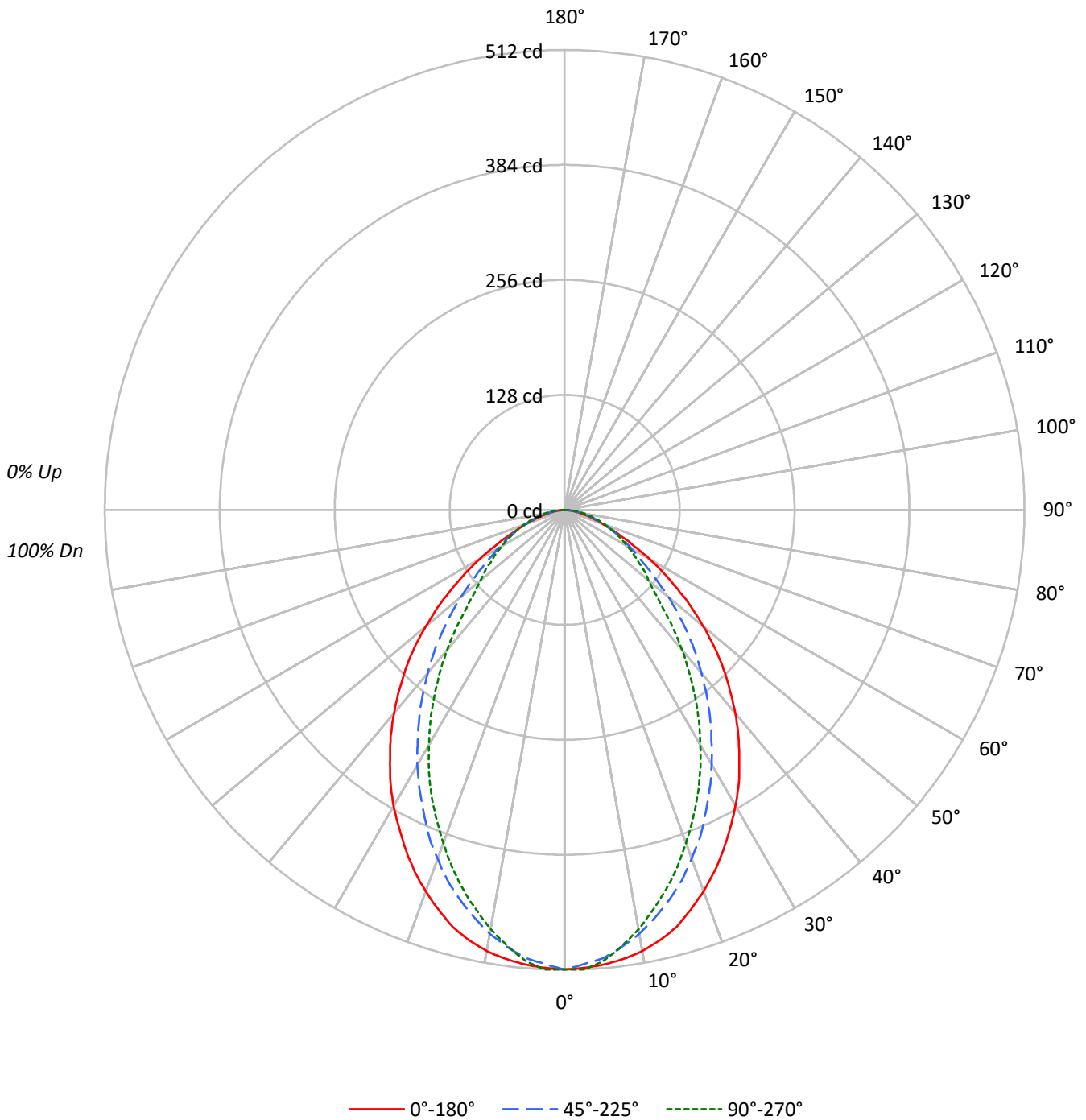
Lumens per Lamp: N/A
Luminaire Lumens: 895.0 lumens
Efficiency: N/A
Efficacy: 45.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	6009	6009	6009
5°	5988	5901	5937
10°	5947	5713	5654
15°	5846	5466	5316
20°	5648	5165	4933
25°	5418	4813	4542
30°	5162	4445	4095
35°	4858	4047	3624
40°	4534	3630	3121
45°	4157	3207	2564
50°	3685	2753	2225
55°	3134	2303	2039
60°	2558	2008	1893
65°	1948	1778	1759
70°	1521	1583	1648
75°	1230	1425	1533
80°	913	1163	1413
85°	498	741	1240

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4157 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	5.3
10°-20°	127.8	14.3
20°-30°	173.7	19.4
30°-40°	180.1	20.1
40°-50°	151.9	17.0
50°-60°	107.8	12.0
60°-70°	65.9	7.4
70°-80°	32.8	3.7
80°-90°	7.4	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°	349.0	39.0
0°-40°	529.1	59.1
0°-60°	788.8	88.1
0°-90°	895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	895.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	512	512	512	512	512	
5°	508	508	501	504	504	48
15°	481	472	450	442	437	135
25°	418	400	372	358	351	192
35°	339	313	282	263	253	212
45°	250	224	193	167	154	192
55°	153	137	112	103	100	137
65°	70	68	64	64	63	72
75°	27	29	31	33	34	29
85°	4	4	6	8	9	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	511.7	511.7	511.7	511.7	511.7
2.5°	510.5	511.1	506.1	511.7	512.3
5°	508.0	508.0	500.6	503.7	503.7
7.5°	504.3	503.1	490.8	490.8	489.5
10°	498.8	495.1	479.1	476.0	474.2
12.5°	490.8	484.6	464.9	459.4	455.7
15°	480.9	471.7	449.6	441.6	437.3
17.5°	466.8	457.6	433.0	421.9	417.0
20°	452.0	438.5	413.3	402.2	394.8
22.5°	436.0	418.8	394.2	380.7	372.7
25°	418.2	399.8	371.5	357.9	350.6
27.5°	399.1	378.8	349.9	334.6	327.2
30°	380.7	357.3	327.8	310.6	302.0
32.5°	361.0	334.6	304.4	286.6	278.0
35°	338.9	313.0	282.3	262.6	252.8
37.5°	318.0	291.5	259.5	238.6	227.6
40°	295.8	269.4	236.8	215.3	203.6
42.5°	272.4	247.2	215.3	190.0	179.0
45°	250.3	223.9	193.1	166.7	154.4
47.5°	226.3	201.7	171.6	144.5	135.9
50°	201.7	179.0	150.7	126.1	121.8
52.5°	177.7	158.7	129.8	113.8	111.9
55°	153.1	137.1	112.5	102.7	99.6
57.5°	130.4	118.7	96.6	91.6	90.4
60°	108.9	99.0	85.5	82.4	80.6
62.5°	87.9	82.4	74.4	73.2	72.0
65°	70.1	67.7	64.0	64.0	63.3
67.5°	55.4	55.4	54.7	56.0	55.4
70°	44.3	44.9	46.1	47.4	48.0
72.5°	35.1	36.9	38.1	40.0	40.6
75°	27.1	28.9	31.4	32.6	33.8
77.5°	19.7	21.5	24.0	25.8	27.1
80°	13.5	14.8	17.2	19.7	20.9
82.5°	8.6	9.2	11.1	13.5	14.8
85°	3.7	4.3	5.5	8.0	9.2
87.5°	0.0	0.0	0.6	2.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)