

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: P1059268

Luminaire Tested: S123RDR-S560D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059268
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

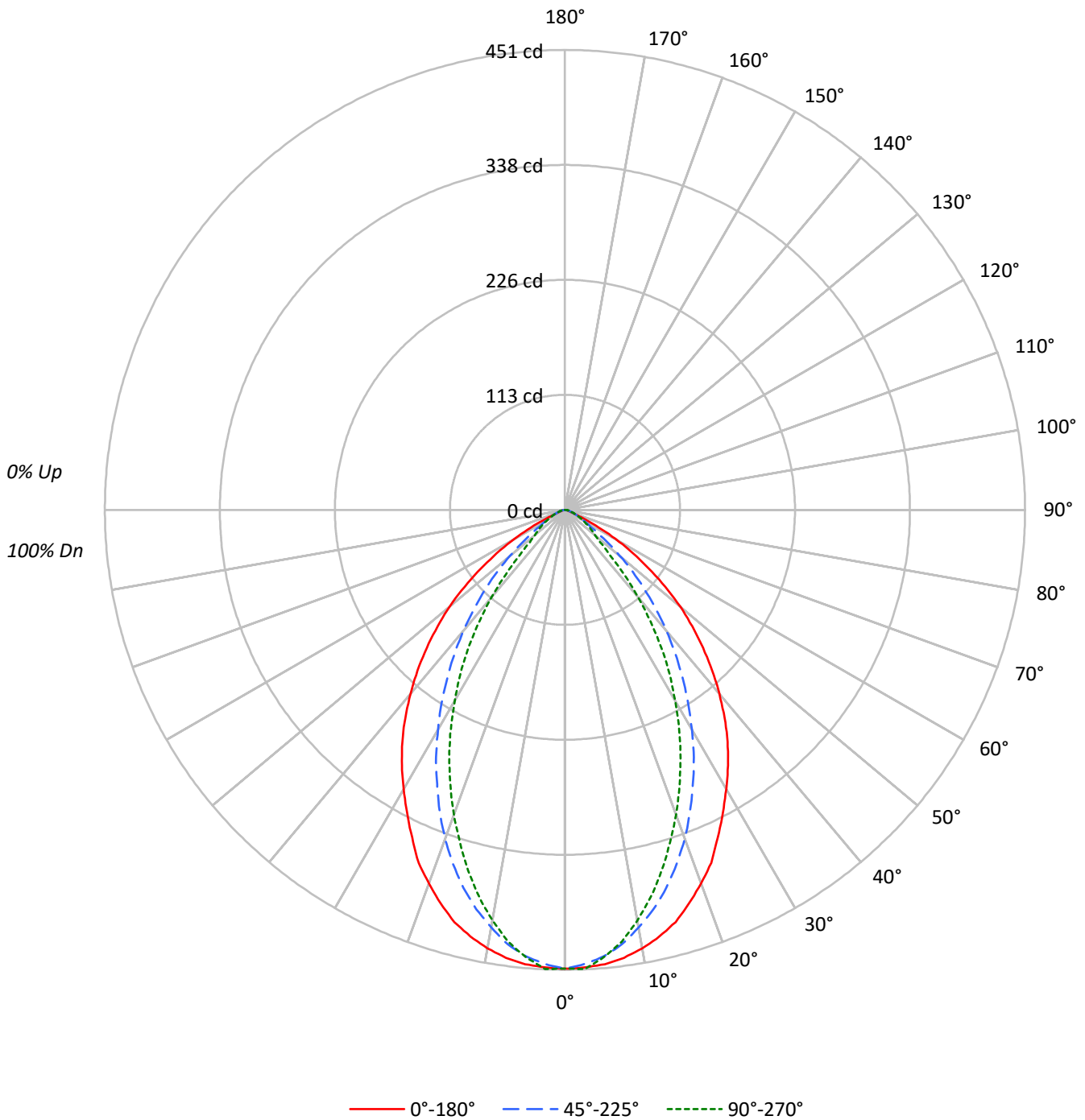
Lumens per Lamp: N/A
Luminaire Lumens: 580.9 lumens
Efficiency: N/A
Efficacy: 29.6 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5283	5283	5283
5°	5271	5181	5189
10°	5207	4958	4874
15°	5089	4666	4454
20°	4873	4291	3977
25°	4593	3844	3475
30°	4287	3372	2927
35°	3984	2876	2357
40°	3608	2370	1708
45°	3180	1838	1030
50°	2698	1284	700
55°	2053	770	586
60°	1341	491	458
65°	561	367	367
70°	192	264	288
75°	159	191	222
80°	95	142	189
85°	94	94	189

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3180 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	7.2
10°-20°	108.8	18.7
20°-30°	139.5	24.0
30°-40°	130.9	22.5
40°-50°	91.3	15.7
50°-60°	47.2	8.1
60°-70°	16.1	2.8
70°-80°	4.6	0.8
80°-90°	1.0	0.2
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°	289.8	49.9
0°-40°	420.6	72.4
0°-60°	559.1	96.3
0°-90°	580.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	580.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	447	446	440	442	440	42
15°	419	408	384	371	366	117
25°	354	332	297	276	268	163
35°	278	244	201	175	164	173
45°	192	157	111	77	62	147
55°	100	75	38	29	29	90
65°	20	17	13	12	13	24
75°	4	4	4	5	5	4
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	449.9	449.9	449.9	449.9	449.9
2.5°	449.2	449.9	445.8	449.9	450.6
5°	447.2	446.5	439.5	441.6	440.2
7.5°	443.0	440.9	429.7	427.0	427.0
10°	436.7	432.5	415.8	410.9	408.8
12.5°	428.4	422.8	401.2	392.1	388.7
15°	418.6	408.2	383.8	371.2	366.4
17.5°	404.7	390.7	364.3	349.6	342.0
20°	390.0	372.6	343.4	326.0	318.3
22.5°	374.7	353.8	320.4	301.6	293.2
25°	354.5	332.2	296.7	276.5	268.2
27.5°	335.0	311.3	273.7	250.7	242.4
30°	316.2	288.4	248.7	226.4	215.9
32.5°	297.4	266.1	225.0	200.6	190.8
35°	277.9	243.8	200.6	174.8	164.4
37.5°	257.0	222.2	177.6	149.7	137.2
40°	235.4	199.2	154.6	123.3	111.4
42.5°	213.8	178.3	131.6	99.6	85.7
45°	191.5	156.7	110.7	76.6	62.0
47.5°	169.3	135.1	90.5	55.7	46.7
50°	147.7	114.9	70.3	41.1	38.3
52.5°	124.0	95.4	52.9	34.1	33.4
55°	100.3	75.2	37.6	29.3	28.6
57.5°	79.4	58.5	27.2	24.4	23.7
60°	57.1	41.8	20.9	20.2	19.5
62.5°	37.6	28.6	16.7	16.0	16.0
65°	20.2	17.4	13.2	12.5	13.2
67.5°	8.4	9.8	9.8	10.4	10.4
70°	5.6	6.3	7.7	8.4	8.4
72.5°	4.2	4.9	5.6	6.3	6.3
75°	3.5	3.5	4.2	4.9	4.9
77.5°	2.1	2.8	2.8	3.5	4.2
80°	1.4	2.1	2.1	2.8	2.8
82.5°	0.7	1.4	1.4	2.1	2.1
85°	0.7	0.7	0.7	0.7	1.4
87.5°	0.0	0.0	0.0	0.0	0.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)