

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: P1059271

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059271
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-S560D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

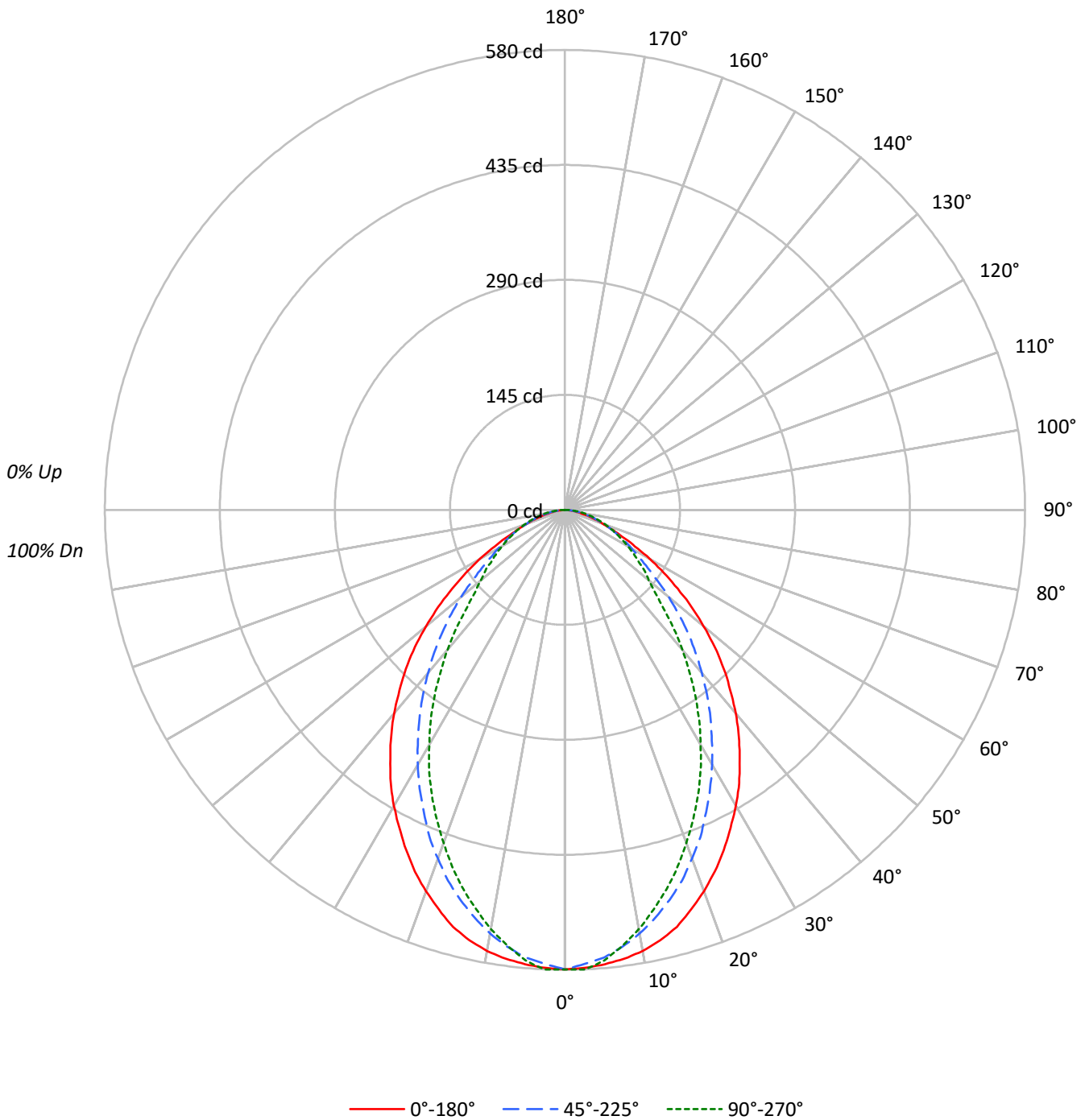
Lumens per Lamp: N/A
Luminaire Lumens: 1013.5 lumens
Efficiency: N/A
Efficacy: 51.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1059271

CATALOG NUMBER: S123RDR-S560D840-X4F0-XX-UDD-WVL-B

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°	6805	6805	6805
5°	6781	6682	6723
10°	6736	6470	6403
15°	6622	6189	6020
20°	6397	5848	5587
25°	6136	5451	5144
30°	5845	5033	4637
35°	5502	4583	4104
40°	5135	4111	3533
45°	4708	3632	2903
50°	4174	3117	2519
55°	3550	2610	2309
60°	2896	2273	2142
65°	2206	2012	1992
70°	1720	1792	1864
75°	1388	1611	1738
80°	1035	1319	1603
85°	566	849	1401

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4708 cd/sqm

TEST NUMBER: P1059271

CATALOG NUMBER: S123RDR-S560D840-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	5.3
10°-20°	144.7	14.3
20°-30°	196.7	19.4
30°-40°	204.0	20.1
40°-50°	172.0	17.0
50°-60°	122.1	12.0
60°-70°	74.6	7.4
70°-80°	37.1	3.7
80°-90°	8.4	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°	395.3	39.0
0°-40°	599.2	59.1
0°-60°	893.3	88.1
0°-90°	1013.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1013.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	575	575	567	570	570	55
15°	545	534	509	500	495	153
25°	474	453	421	405	397	218
35°	384	354	320	297	286	240
45°	284	254	219	189	175	218
55°	173	155	128	116	113	156
65°	79	77	72	72	72	81
75°	31	33	36	37	38	33
85°	4	5	6	9	10	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	579.5	579.5	579.5	579.5	579.5
2.5°	578.1	578.8	573.2	579.5	580.2
5°	575.3	575.3	566.9	570.4	570.4
7.5°	571.1	569.7	555.8	555.8	554.4
10°	564.9	560.7	542.6	539.1	537.0
12.5°	555.8	548.8	526.6	520.3	516.1
15°	544.7	534.2	509.1	500.1	495.2
17.5°	528.6	518.2	490.3	477.8	472.2
20°	511.9	496.6	468.0	455.5	447.1
22.5°	493.8	474.3	446.5	431.1	422.1
25°	473.6	452.7	420.7	405.4	397.0
27.5°	452.0	429.0	396.3	378.9	370.5
30°	431.1	404.7	371.2	351.7	342.0
32.5°	408.8	378.9	344.8	324.6	314.8
35°	383.8	354.5	319.7	297.4	286.3
37.5°	360.1	330.1	293.9	270.2	257.7
40°	335.0	305.1	268.2	243.8	230.5
42.5°	308.5	280.0	243.8	215.2	202.7
45°	283.5	253.5	218.7	188.8	174.8
47.5°	256.3	228.5	194.3	163.7	153.9
50°	228.5	202.7	170.6	142.8	137.9
52.5°	201.3	179.7	147.0	128.9	126.8
55°	173.4	155.3	127.5	116.3	112.8
57.5°	147.7	134.4	109.3	103.8	102.4
60°	123.3	112.1	96.8	93.3	91.2
62.5°	99.6	93.3	84.3	82.9	81.5
65°	79.4	76.6	72.4	72.4	71.7
67.5°	62.7	62.7	62.0	63.4	62.7
70°	50.1	50.8	52.2	53.6	54.3
72.5°	39.7	41.8	43.2	45.3	46.0
75°	30.6	32.7	35.5	36.9	38.3
77.5°	22.3	24.4	27.2	29.3	30.6
80°	15.3	16.7	19.5	22.3	23.7
82.5°	9.8	10.4	12.5	15.3	16.7
85°	4.2	4.9	6.3	9.1	10.4
87.5°	0.0	0.0	0.7	2.8	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)