

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: P1059247

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D830-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

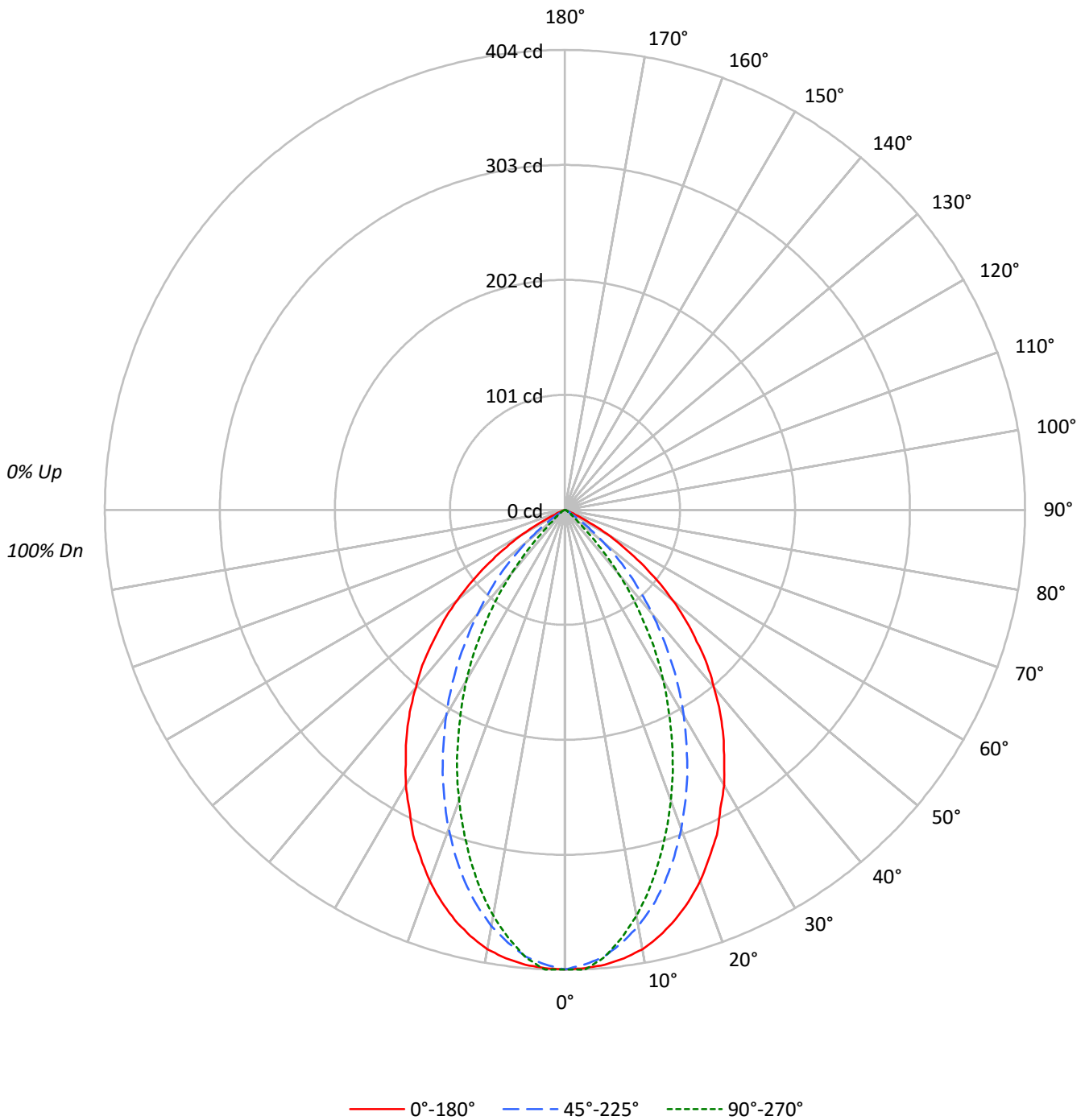
Lumens per Lamp: N/A
Luminaire Lumens: 460.7 lumens
Efficiency: N/A
Efficacy: 23.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4740	4740	4740
5°	4728	4643	4651
10°	4674	4426	4318
15°	4536	4117	3880
20°	4337	3729	3395
25°	4085	3294	2872
30°	3790	2830	2344
35°	3476	2339	1743
40°	3119	1833	1116
45°	2720	1338	465
50°	2256	796	179
55°	1664	334	133
60°	1008	122	78
65°	272	72	36
70°	0	24	24
75°	0	0	32
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2720 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	8.1
10°-20°	95.9	20.8
20°-30°	119.5	25.9
30°-40°	106.9	23.2
40°-50°	67.5	14.6
50°-60°	28.2	6.1
60°-70°	5.3	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	252.6	54.8
0°-40°	359.5	78.0
0°-60°	455.2	98.8
0°-90°	460.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	460.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	401	400	394	395	395	38
15°	373	364	339	324	319	105
25°	315	290	254	232	222	144
35°	242	207	163	134	122	151
45°	164	127	81	43	28	126
55°	81	56	16	6	6	73
65°	10	7	3	1	1	14
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	403.7	403.7	403.7	403.7	403.7
2.5°	403.0	403.7	399.8	403.7	404.3
5°	401.1	400.4	393.9	395.2	394.6
7.5°	397.2	395.2	383.5	380.9	379.6
10°	392.0	386.8	371.2	364.7	362.1
12.5°	383.5	376.4	356.2	345.8	341.9
15°	373.1	364.0	338.7	324.4	319.2
17.5°	360.8	347.8	319.2	303.6	295.8
20°	347.1	328.9	298.4	279.5	271.7
22.5°	330.9	310.7	276.3	256.1	247.7
25°	315.3	289.9	254.2	232.1	221.7
27.5°	295.8	269.1	230.8	208.0	197.0
30°	279.5	249.0	208.7	183.3	172.9
32.5°	260.0	228.2	185.9	158.0	148.2
35°	242.5	207.4	163.2	133.9	121.6
37.5°	223.6	187.2	140.4	109.9	98.2
40°	203.5	167.1	119.6	85.8	72.8
42.5°	185.3	146.9	98.8	63.7	50.7
45°	163.8	127.4	80.6	42.9	28.0
47.5°	144.3	109.2	61.1	24.1	15.0
50°	123.5	90.4	43.6	12.4	9.8
52.5°	102.1	72.2	28.6	8.5	7.8
55°	81.3	55.9	16.3	6.5	6.5
57.5°	61.1	40.3	8.5	5.2	4.6
60°	42.9	26.7	5.2	3.9	3.3
62.5°	24.7	15.6	3.9	2.6	2.6
65°	9.8	7.2	2.6	1.3	1.3
67.5°	0.7	2.0	1.3	0.7	0.7
70°	0.0	0.0	0.7	0.7	0.7
72.5°	0.0	0.0	0.7	0.7	0.7
75°	0.0	0.0	0.0	0.0	0.7
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)