

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: P1059250

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059250
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-S560D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

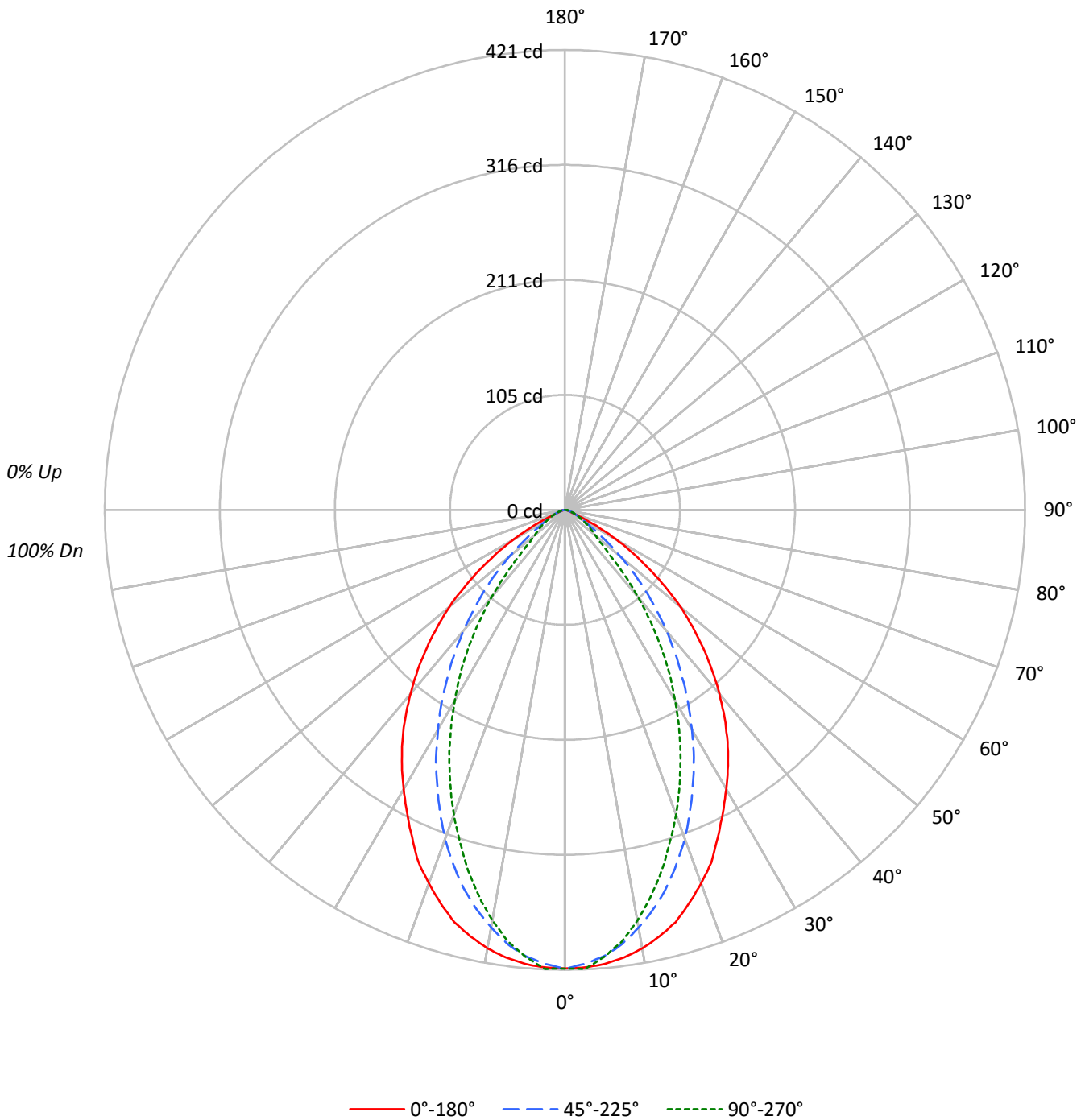
Lumens per Lamp: N/A
Luminaire Lumens: 542.2 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	47	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°	4931	4931	4931
5°	4919	4835	4842
10°	4860	4628	4550
15°	4750	4355	4156
20°	4549	4005	3713
25°	4287	3588	3243
30°	4001	3147	2732
35°	3718	2683	2199
40°	3368	2212	1594
45°	2969	1717	962
50°	2517	1200	654
55°	1916	719	547
60°	1252	458	427
65°	525	345	345
70°	179	247	268
75°	150	177	209
80°	88	135	176
85°	94	94	175

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2969 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	7.2
10°-20°	101.5	18.7
20°-30°	130.2	24.0
30°-40°	122.1	22.5
40°-50°	85.2	15.7
50°-60°	44.1	8.1
60°-70°	15.1	2.8
70°-80°	4.3	0.8
80°-90°	0.9	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°	270.4	49.9
0°-40°	392.6	72.4
0°-60°	521.9	96.2
0°-90°	542.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	542.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	417	417	410	412	411	40
15°	391	381	358	346	342	109
25°	331	310	277	258	250	152
35°	259	228	187	163	153	162
45°	179	146	103	72	58	138
55°	94	70	35	27	27	84
65°	19	16	12	12	12	22
75°	3	3	4	5	5	3
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°	419.9	419.9	419.9	419.9	419.9
2.5°	419.3	419.9	416.0	419.9	420.6
5°	417.3	416.7	410.2	412.1	410.8
7.5°	413.4	411.5	401.1	398.5	398.5
10°	407.6	403.7	388.1	383.5	381.6
12.5°	399.8	394.6	374.4	366.0	362.7
15°	390.7	380.9	358.2	346.5	341.9
17.5°	377.7	364.7	340.0	326.3	319.2
20°	364.0	347.8	320.5	304.2	297.1
22.5°	349.7	330.2	299.0	281.5	273.7
25°	330.9	310.1	276.9	258.1	250.3
27.5°	312.7	290.6	255.5	234.0	226.2
30°	295.1	269.1	232.1	211.3	201.5
32.5°	277.6	248.3	210.0	187.2	178.1
35°	259.4	227.5	187.2	163.2	153.4
37.5°	239.9	207.4	165.8	139.8	128.1
40°	219.7	185.9	144.3	115.1	104.0
42.5°	199.6	166.4	122.9	93.0	80.0
45°	178.8	146.3	103.4	71.5	57.9
47.5°	158.0	126.1	84.5	52.0	43.6
50°	137.8	107.3	65.7	38.4	35.8
52.5°	115.7	89.1	49.4	31.9	31.2
55°	93.6	70.2	35.1	27.3	26.7
57.5°	74.1	54.6	25.4	22.8	22.1
60°	53.3	39.0	19.5	18.9	18.2
62.5°	35.1	26.7	15.6	15.0	15.0
65°	18.9	16.3	12.4	11.7	12.4
67.5°	7.8	9.1	9.1	9.8	9.8
70°	5.2	5.9	7.2	7.8	7.8
72.5°	3.9	4.6	5.2	5.9	5.9
75°	3.3	3.3	3.9	4.6	4.6
77.5°	2.0	2.6	2.6	3.3	3.9
80°	1.3	2.0	2.0	2.6	2.6
82.5°	0.7	1.3	1.3	2.0	2.0
85°	0.7	0.7	0.7	0.7	1.3
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)