

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: P1059088

Luminaire Tested: S123RDR-S1165D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059088
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-S1165D830-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

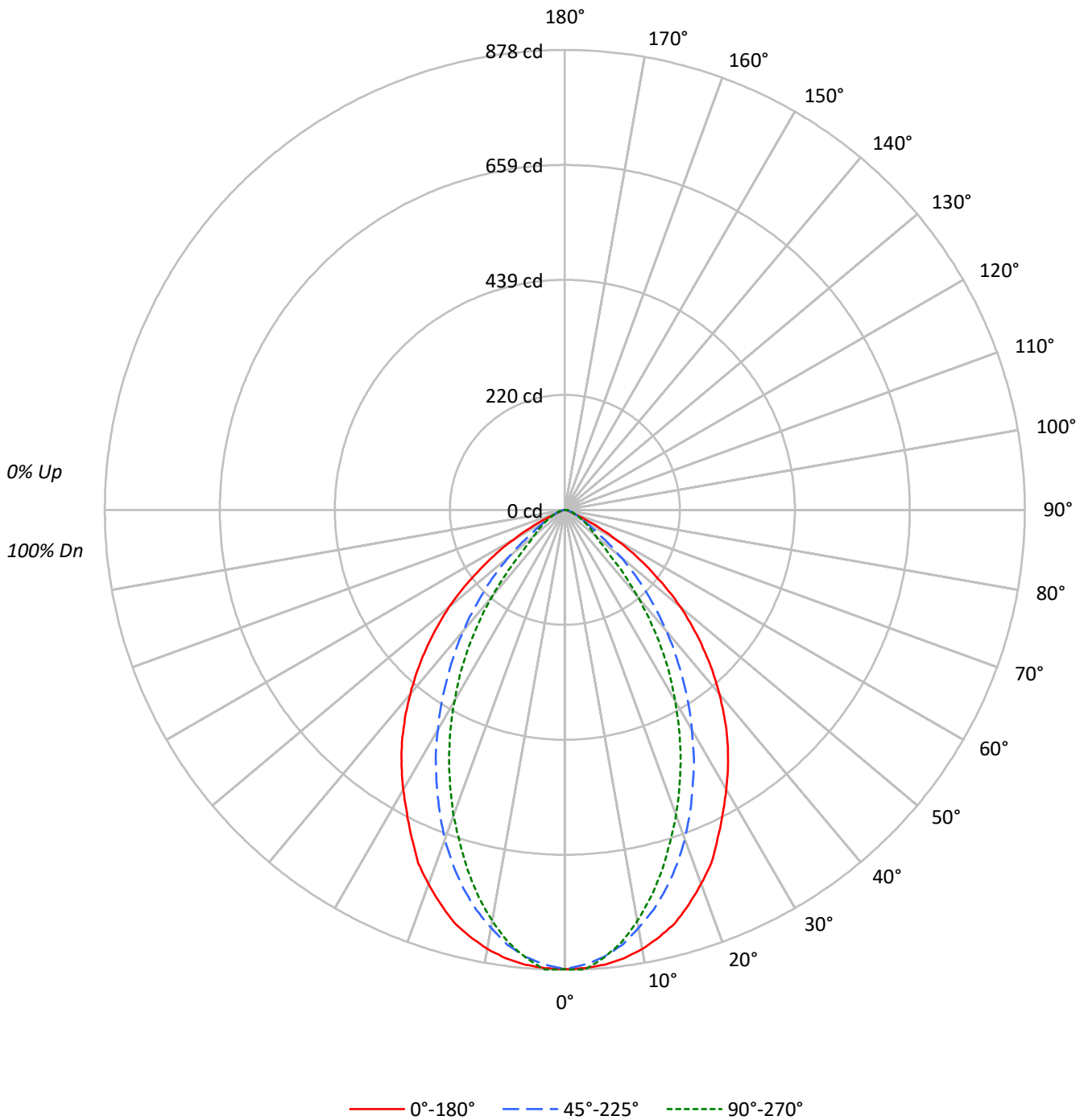
Lumens per Lamp: N/A
Luminaire Lumens: 1132.2 lumens
Efficiency: N/A
Efficacy: 27.1 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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°	10298	10298	10298
5°	10274	10098	10113
10°	10149	9664	9502
15°	9919	9094	8681
20°	9501	8364	7753
25°	8953	7494	6772
30°	8358	6572	5707
35°	7765	5605	4593
40°	7034	4620	3329
45°	6201	3585	2006
50°	5258	2505	1365
55°	4002	1501	1140
60°	2614	956	892
65°	1095	717	717
70°	374	512	560
75°	309	367	431
80°	183	277	365
85°	189	189	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6201 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	7.2
10°-20°	212.0	18.7
20°-30°	271.8	24.0
30°-40°	255.1	22.5
40°-50°	178.0	15.7
50°-60°	92.0	8.1
60°-70°	31.5	2.8
70°-80°	9.0	0.8
80°-90°	1.9	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°	564.8	49.9
0°-40°	819.9	72.4
0°-60°	1089.9	96.3
0°-90°	1132.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1132.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	872	870	857	861	858	83
15°	816	796	748	724	714	229
25°	691	648	578	539	523	318
35°	542	475	391	341	320	337
45°	373	306	216	149	121	287
55°	196	147	73	57	56	176
65°	39	34	26	24	26	47
75°	7	7	8	10	10	7
85°	1	1	1	1	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877.0	877.0	877.0	877.0	877.0
2.5°	875.7	877.0	868.9	877.0	878.4
5°	871.6	870.2	856.7	860.7	858.0
7.5°	863.5	859.4	837.7	832.2	832.2
10°	851.2	843.1	810.5	801.0	796.9
12.5°	834.9	824.1	782.0	764.4	757.6
15°	815.9	795.6	748.1	723.6	714.1
17.5°	788.8	761.6	710.0	681.5	666.6
20°	760.3	726.3	669.3	635.4	620.4
22.5°	730.4	689.7	624.5	587.9	571.6
25°	691.0	647.6	578.4	539.0	522.7
27.5°	653.0	606.9	533.6	488.8	472.5
30°	616.4	562.1	484.7	441.2	420.9
32.5°	579.7	518.6	438.5	391.0	372.0
35°	541.7	475.2	391.0	340.8	320.4
37.5°	501.0	433.1	346.2	291.9	267.5
40°	458.9	388.3	301.4	240.3	217.2
42.5°	416.8	347.6	256.6	194.1	167.0
45°	373.4	305.5	215.9	149.3	120.8
47.5°	329.9	263.4	176.5	108.6	91.0
50°	287.8	224.0	137.1	80.1	74.7
52.5°	241.7	186.0	103.2	66.5	65.2
55°	195.5	146.6	73.3	57.0	55.7
57.5°	154.8	114.0	52.9	47.5	46.2
60°	111.3	81.5	40.7	39.4	38.0
62.5°	73.3	55.7	32.6	31.2	31.2
65°	39.4	33.9	25.8	24.4	25.8
67.5°	16.3	19.0	19.0	20.4	20.4
70°	10.9	12.2	14.9	16.3	16.3
72.5°	8.1	9.5	10.9	12.2	12.2
75°	6.8	6.8	8.1	9.5	9.5
77.5°	4.1	5.4	5.4	6.8	8.1
80°	2.7	4.1	4.1	5.4	5.4
82.5°	1.4	2.7	2.7	4.1	4.1
85°	1.4	1.4	1.4	1.4	2.7
87.5°	0.0	0.0	0.0	0.0	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)