

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: P1059006

Luminaire Tested: S123RDR-S1000D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059006
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1000D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

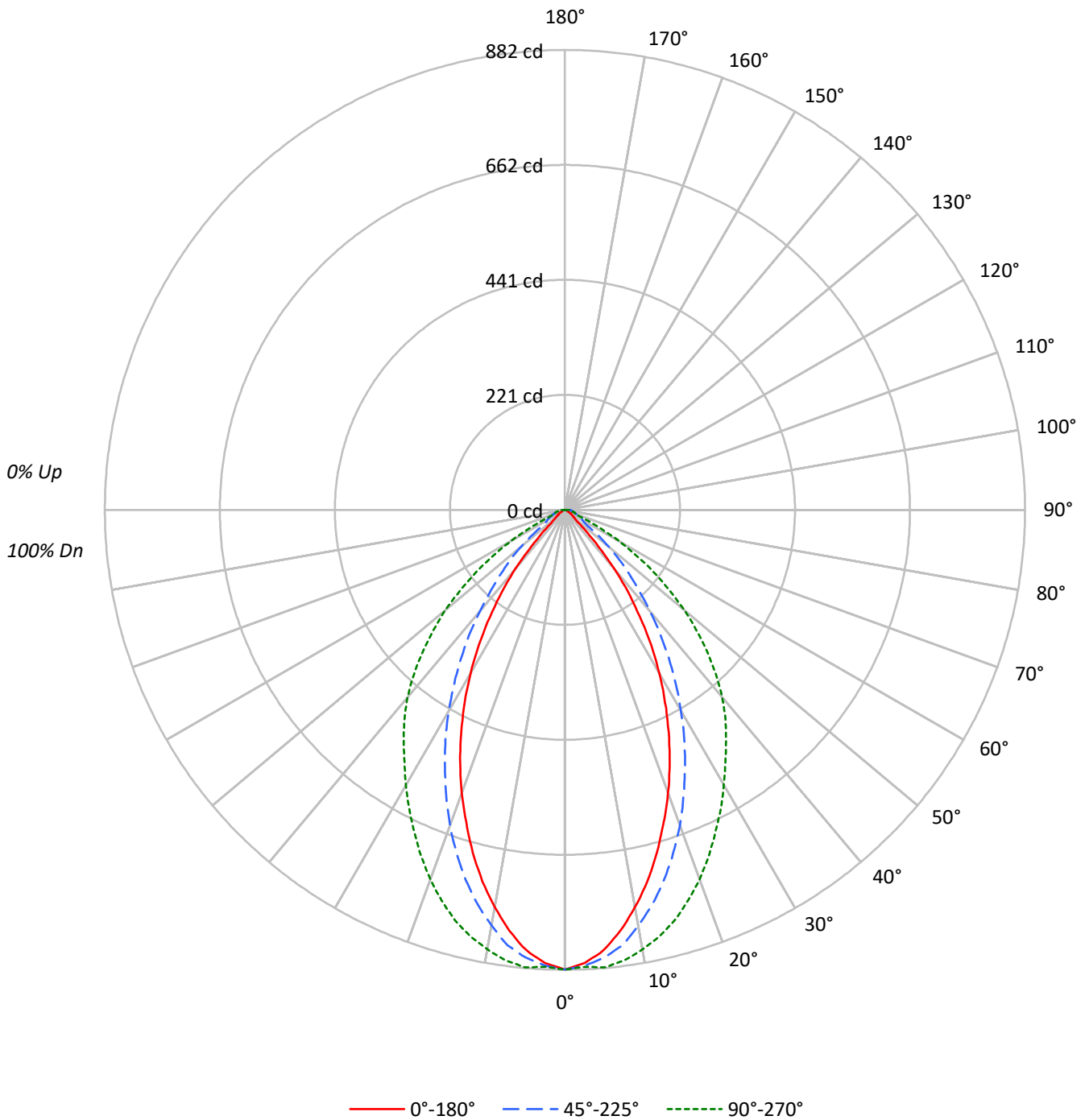
Lumens per Lamp: N/A
Luminaire Lumens: 1058.5 lumens
Efficiency: N/A
Efficacy: 30.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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			100	
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81			81	
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			73	
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66			66	
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60			60	
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55			55	
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50			50	
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47			47	
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43			43	
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40			40	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10353	10353	10353
5°	9997	10161	10379
10°	9228	9657	10209
15°	8282	8930	9902
20°	7224	8050	9425
25°	6095	7055	8841
30°	4902	6032	8263
35°	3588	4966	7722
40°	2238	3872	7192
45°	847	2886	6407
50°	402	1989	5460
55°	309	1091	4221
60°	218	925	2776
65°	161	806	1159
70°	158	755	755
75°	209	789	789
80°	311	940	859
85°	620	1563	1253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6407 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	7.6
10°-20°	207.5	19.6
20°-30°	256.9	24.3
30°-40°	230.3	21.8
40°-50°	151.0	14.3
50°-60°	75.6	7.1
60°-70°	29.5	2.8
70°-80°	16.6	1.6
80°-90°	10.2	1.0
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°	545.4	51.5
0°-40°	775.7	73.3
0°-60°	1002.3	94.7
0°-90°	1058.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1058.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	848	862	862	871	880	79
15°	681	709	735	783	814	190
25°	470	499	544	622	682	215
35°	250	284	346	451	539	156
45°	51	82	174	298	386	49
55°	15	18	53	146	206	14
65°	6	17	29	38	42	6
75°	5	17	17	17	17	5
85°	5	12	12	12	9	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.7	881.7	881.7	881.7	881.7
2.5°	870.1	882.9	874.7	875.9	877.1
5°	848.1	862.0	862.0	871.3	880.5
7.5°	814.5	830.7	842.3	858.5	871.3
10°	773.9	793.6	809.9	838.8	856.2
12.5°	729.9	754.2	775.1	813.3	837.7
15°	681.3	709.1	734.6	783.2	814.5
17.5°	629.1	656.9	690.5	747.3	785.5
20°	578.1	605.9	644.2	707.9	754.2
22.5°	524.8	553.8	594.4	665.0	719.5
25°	470.4	499.4	544.5	622.2	682.4
27.5°	415.9	444.9	495.9	580.5	646.5
30°	361.5	390.4	444.9	535.3	609.4
32.5°	307.0	338.3	395.1	493.6	572.3
35°	250.3	283.9	346.4	450.7	538.7
37.5°	198.1	229.4	300.1	413.6	505.1
40°	146.0	179.6	252.6	377.7	469.2
42.5°	95.0	130.9	209.7	338.3	428.7
45°	51.0	82.3	173.8	297.8	385.8
47.5°	27.8	45.2	140.2	254.9	341.8
50°	22.0	25.5	108.9	217.8	298.9
52.5°	18.5	20.9	77.6	183.1	251.4
55°	15.1	18.5	53.3	146.0	206.2
57.5°	12.7	16.2	41.7	113.5	161.0
60°	9.3	13.9	39.4	83.4	118.2
62.5°	7.0	15.1	34.8	57.9	77.6
65°	5.8	17.4	29.0	38.2	41.7
67.5°	4.6	18.5	25.5	24.3	24.3
70°	4.6	17.4	22.0	20.9	22.0
72.5°	4.6	18.5	19.7	18.5	19.7
75°	4.6	17.4	17.4	17.4	17.4
77.5°	4.6	16.2	16.2	15.1	15.1
80°	4.6	13.9	13.9	13.9	12.7
82.5°	4.6	12.7	12.7	12.7	10.4
85°	4.6	11.6	11.6	11.6	9.3
87.5°	3.5	10.4	11.6	10.4	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)