

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: P1059037

Luminaire Tested: S123RDR-S1000D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059037
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-S1000D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

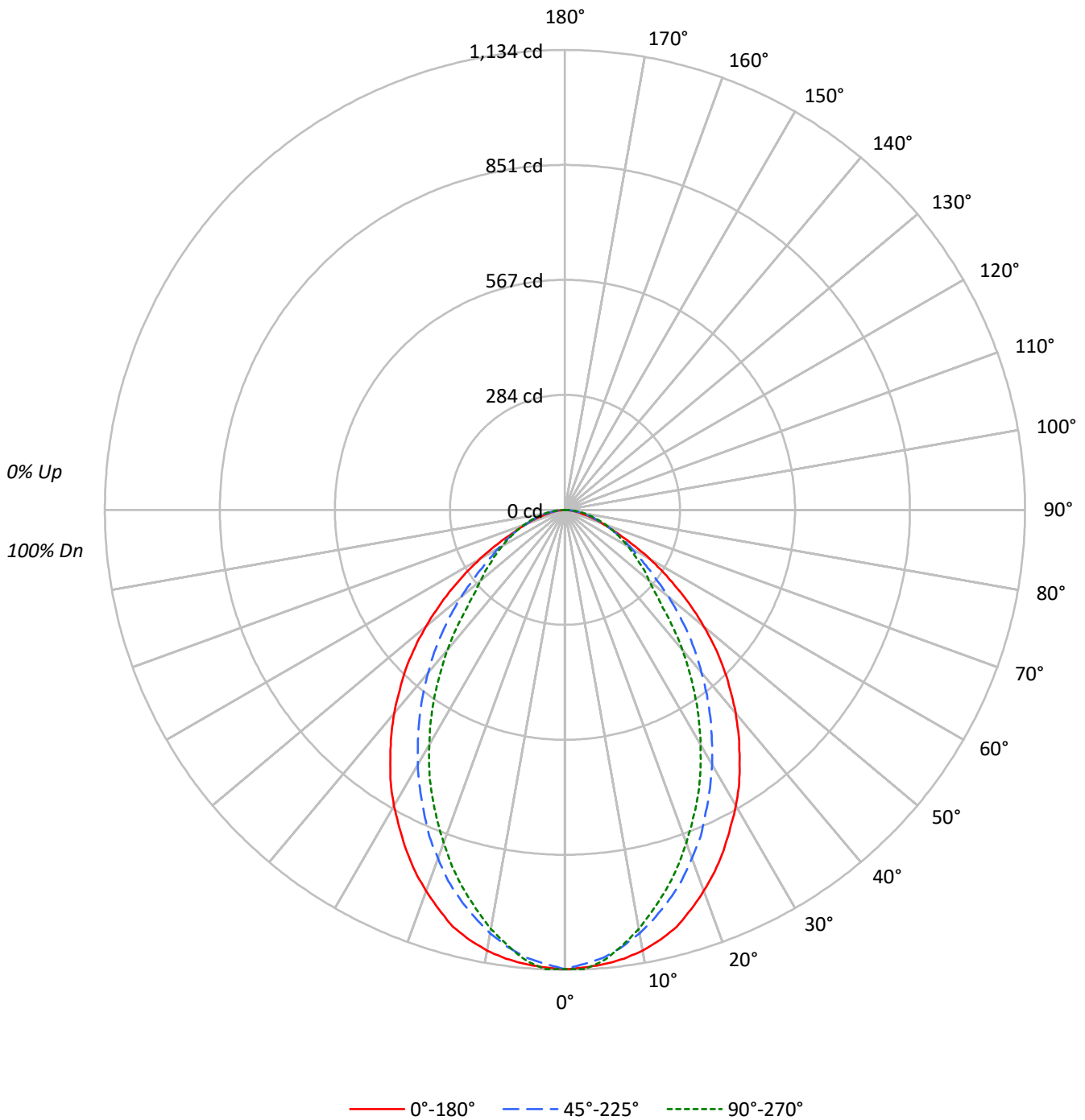
Lumens per Lamp: N/A
Luminaire Lumens: 1980.7 lumens
Efficiency: N/A
Efficacy: 56.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	13297	13297	13297
5°	13252	13059	13139
10°	13161	12643	12513
15°	12940	12096	11764
20°	12501	11430	10919
25°	11991	10651	10052
30°	11423	9837	9061
35°	10751	8955	8019
40°	10036	8032	6906
45°	9200	7098	5673
50°	8155	6092	4923
55°	6938	5100	4514
60°	5658	4443	4187
65°	4312	3934	3895
70°	3365	3505	3646
75°	2718	3149	3398
80°	2022	2576	3131
85°	1105	1644	2748

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9200 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.1	5.3
10°-20°	282.8	14.3
20°-30°	384.5	19.4
30°-40°	398.6	20.1
40°-50°	336.2	17.0
50°-60°	238.6	12.0
60°-70°	145.8	7.4
70°-80°	72.6	3.7
80°-90°	16.5	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°	772.4	39.0
0°-40°	1171.0	59.1
0°-60°	1745.8	88.1
0°-90°	1980.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1980.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1124	1124	1108	1115	1115	107
15°	1064	1044	995	977	968	299
25°	926	885	822	792	776	425
35°	750	693	625	581	559	469
45°	554	495	427	369	342	425
55°	339	304	249	227	220	304
65°	155	150	142	142	140	158
75°	60	64	69	72	75	65
85°	8	10	12	18	20	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1132.4	1132.4	1132.4	1132.4	1132.4
2.5°	1129.7	1131.1	1120.2	1132.4	1133.8
5°	1124.3	1124.3	1107.9	1114.7	1114.7
7.5°	1116.1	1113.4	1086.2	1086.2	1083.4
10°	1103.8	1095.7	1060.3	1053.5	1049.4
12.5°	1086.2	1072.5	1029.0	1016.7	1008.6
15°	1064.4	1044.0	995.0	977.3	967.7
17.5°	1033.1	1012.7	958.2	933.7	922.8
20°	1000.4	970.5	914.7	890.2	873.8
22.5°	965.0	926.9	872.5	842.5	824.8
25°	925.5	884.7	822.1	792.2	775.8
27.5°	883.3	838.4	774.5	740.4	724.1
30°	842.5	790.8	725.5	687.4	668.3
32.5°	799.0	740.4	673.7	634.3	615.2
35°	750.0	692.8	624.7	581.2	559.4
37.5°	703.7	645.2	574.4	528.1	503.6
40°	654.7	596.2	524.0	476.4	450.5
42.5°	603.0	547.2	476.4	420.6	396.1
45°	554.0	495.4	427.4	368.9	341.6
47.5°	500.9	446.4	379.7	319.9	300.8
50°	446.4	396.1	333.5	279.0	269.5
52.5°	393.4	351.2	287.2	251.8	247.7
55°	338.9	303.5	249.1	227.3	220.5
57.5°	288.6	262.7	213.7	202.8	200.1
60°	240.9	219.1	189.2	182.4	178.3
62.5°	194.6	182.4	164.7	162.0	159.2
65°	155.2	149.7	141.6	141.6	140.2
67.5°	122.5	122.5	121.1	123.9	122.5
70°	98.0	99.4	102.1	104.8	106.2
72.5°	77.6	81.7	84.4	88.5	89.8
75°	59.9	64.0	69.4	72.1	74.9
77.5°	43.6	47.6	53.1	57.2	59.9
80°	29.9	32.7	38.1	43.6	46.3
82.5°	19.1	20.4	24.5	29.9	32.7
85°	8.2	9.5	12.2	17.7	20.4
87.5°	0.0	0.0	1.4	5.4	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)