

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: P1059028

Luminaire Tested: S123RDR-S1000D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059028
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-S1000D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

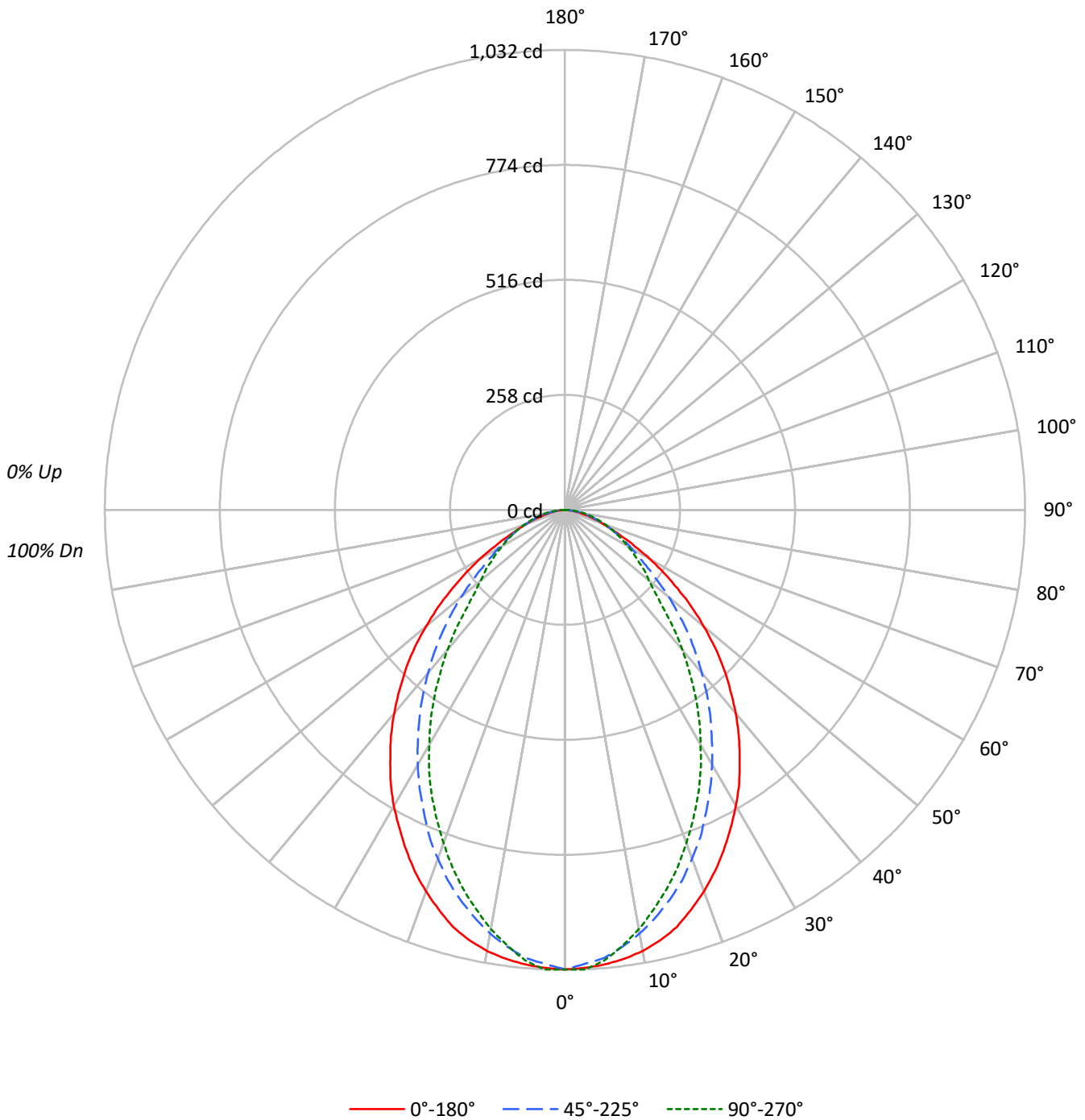
Lumens per Lamp: N/A
Luminaire Lumens: 1803.6 lumens
Efficiency: N/A
Efficacy: 51.5 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	50	30	10
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°	12109	12109	12109
5°	12068	11892	11965
10°	11986	11512	11394
15°	11782	11014	10712
20°	11384	10408	9943
25°	10920	9699	9154
30°	10402	8957	8252
35°	9789	8155	7302
40°	9139	7315	6288
45°	8376	6463	5166
50°	7426	5548	4483
55°	6318	4643	4111
60°	5153	4046	3814
65°	3926	3581	3548
70°	3062	3193	3320
75°	2473	2867	3094
80°	1846	2346	2847
85°	997	1509	2506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8376 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.7	5.3
10°-20°	257.5	14.3
20°-30°	350.1	19.4
30°-40°	362.9	20.1
40°-50°	306.1	17.0
50°-60°	217.3	12.0
60°-70°	132.8	7.4
70°-80°	66.1	3.7
80°-90°	15.0	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°	703.4	39.0
0°-40°	1066.3	59.1
0°-60°	1589.7	88.1
0°-90°	1803.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1803.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1031	1031	1031	1031	1031	
5°	1024	1024	1009	1015	1015	97
15°	969	951	906	890	881	272
25°	843	806	749	721	706	387
35°	683	631	569	529	509	427
45°	504	451	389	336	311	387
55°	309	276	227	207	201	277
65°	141	136	129	129	128	144
75°	54	58	63	66	68	59
85°	7	9	11	16	19	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1031.2	1031.2	1031.2	1031.2	1031.2
2.5°	1028.7	1030.0	1020.0	1031.2	1032.4
5°	1023.8	1023.8	1008.9	1015.1	1015.1
7.5°	1016.3	1013.8	989.1	989.1	986.6
10°	1005.2	997.7	965.5	959.3	955.6
12.5°	989.1	976.7	937.0	925.8	918.4
15°	969.2	950.6	906.0	889.9	881.2
17.5°	940.7	922.1	872.6	850.2	840.3
20°	911.0	883.7	832.9	810.6	795.7
22.5°	878.8	844.0	794.5	767.2	751.1
25°	842.8	805.6	748.6	721.3	706.5
27.5°	804.4	763.5	705.2	674.2	659.4
30°	767.2	720.1	660.6	625.9	608.6
32.5°	727.5	674.2	613.5	577.6	560.2
35°	682.9	630.9	568.9	529.2	509.4
37.5°	640.8	587.5	523.0	480.9	458.6
40°	596.2	542.9	477.2	433.8	410.2
42.5°	549.1	498.2	433.8	383.0	360.7
45°	504.4	451.2	389.2	335.9	311.1
47.5°	456.1	406.5	345.8	291.3	273.9
50°	406.5	360.7	303.7	254.1	245.4
52.5°	358.2	319.8	261.5	229.3	225.6
55°	308.6	276.4	226.8	207.0	200.8
57.5°	262.8	239.2	194.6	184.7	182.2
60°	219.4	199.5	172.3	166.1	162.4
62.5°	177.2	166.1	150.0	147.5	145.0
65°	141.3	136.3	128.9	128.9	127.7
67.5°	111.5	111.5	110.3	112.8	111.5
70°	89.2	90.5	93.0	95.4	96.7
72.5°	70.6	74.4	76.8	80.6	81.8
75°	54.5	58.3	63.2	65.7	68.2
77.5°	39.7	43.4	48.3	52.1	54.5
80°	27.3	29.7	34.7	39.7	42.1
82.5°	17.4	18.6	22.3	27.3	29.7
85°	7.4	8.7	11.2	16.1	18.6
87.5°	0.0	0.0	1.2	5.0	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)