

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S123RDRP-S1000D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S123RDRP-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

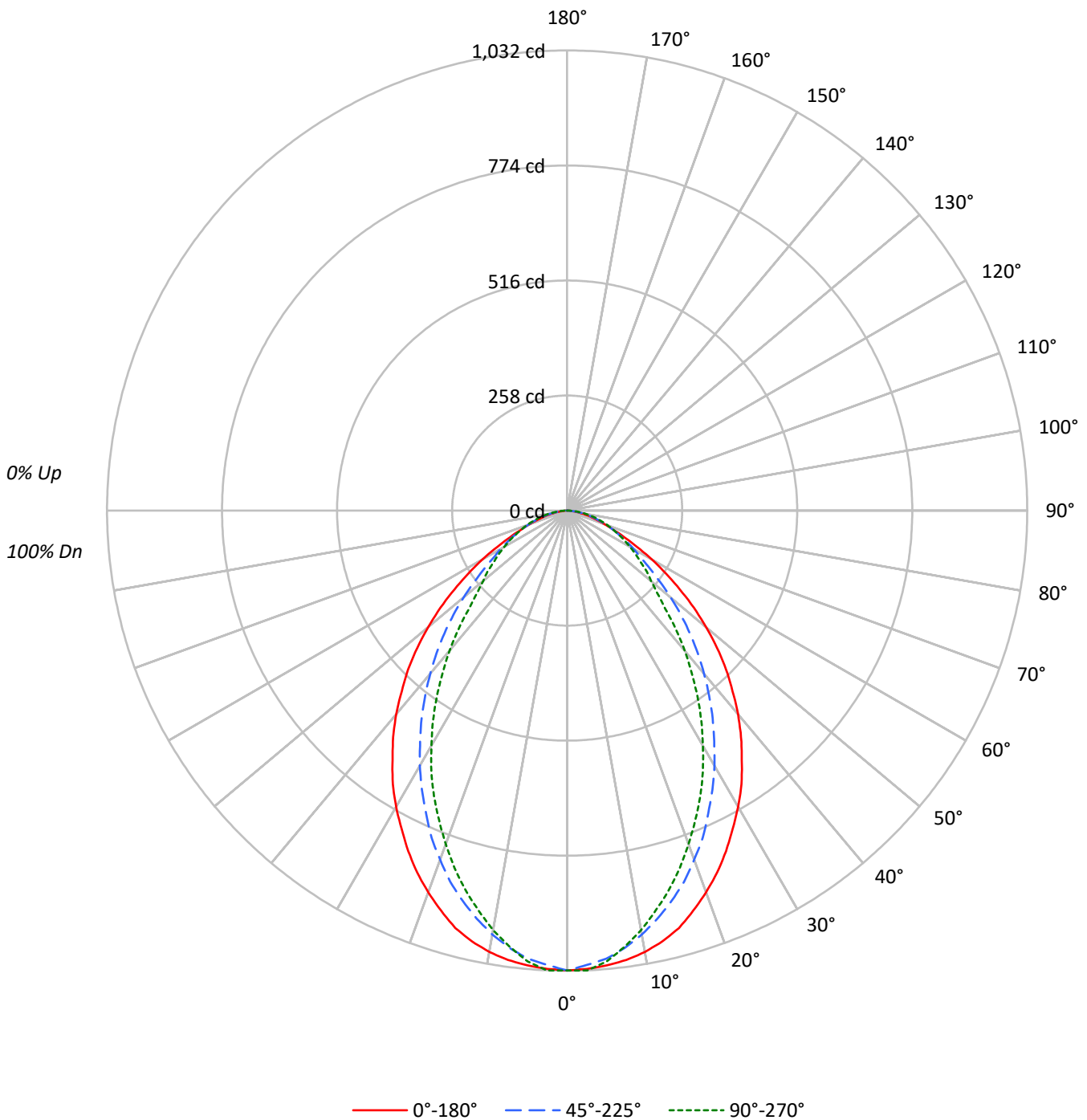
Lumens per Lamp: N/A
Luminaire Lumens: 1803.6 lumens
Efficiency: N/A
Efficacy: 51.5 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P1059028

CATALOG NUMBER: S123RDRP-S1000D840-X4F0-XX-UDD-WVL-B

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	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	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

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.47	18.92	17.84	19.24	19.55	15.57	17.02	15.94	17.33	17.65
	3H	18.37	19.67	18.75	19.99	20.36	17.14	18.44	17.52	18.77	19.13
	4H	18.65	19.87	19.05	20.21	20.59	17.74	18.95	18.14	19.30	19.68
	6H	18.80	19.92	19.22	20.29	20.68	18.19	19.31	18.60	19.68	20.07
	8H	18.83	19.89	19.25	20.28	20.68	18.34	19.40	18.77	19.79	20.19
	12H	18.82	19.84	19.25	20.22	20.65	18.44	19.45	18.87	19.84	20.27
4H	2H	17.72	18.93	18.12	19.28	19.66	16.11	17.32	16.51	17.67	18.05
	3H	18.83	19.83	19.24	20.23	20.63	17.89	18.89	18.30	19.29	19.69
	4H	19.22	20.12	19.65	20.54	20.98	18.60	19.50	19.03	19.91	20.35
	6H	19.46	20.24	19.92	20.69	21.15	19.17	19.95	19.63	20.39	20.85
	8H	19.51	20.23	19.97	20.68	21.15	19.36	20.09	19.83	20.53	21.00
	12H	19.51	20.16	20.00	20.64	21.11	19.50	20.15	19.98	20.63	21.10
8H	4H	19.38	20.11	19.84	20.55	21.02	18.81	19.53	19.27	19.98	20.45
	6H	19.69	20.29	20.19	20.78	21.26	19.48	20.08	19.98	20.57	21.05
	8H	19.77	20.30	20.28	20.82	21.31	19.74	20.28	20.26	20.79	21.28
	12H	19.80	20.28	20.31	20.77	21.34	19.95	20.42	20.46	20.92	21.48
12H	4H	19.38	20.03	19.87	20.51	20.98	18.81	19.45	19.29	19.93	20.40
	6H	19.71	20.24	20.22	20.76	21.24	19.49	20.03	20.01	20.54	21.03
	8H	19.82	20.29	20.33	20.79	21.36	19.80	20.27	20.31	20.76	21.33