

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: P1056467

Luminaire Tested: S125R3DR-S850D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056467
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D830-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

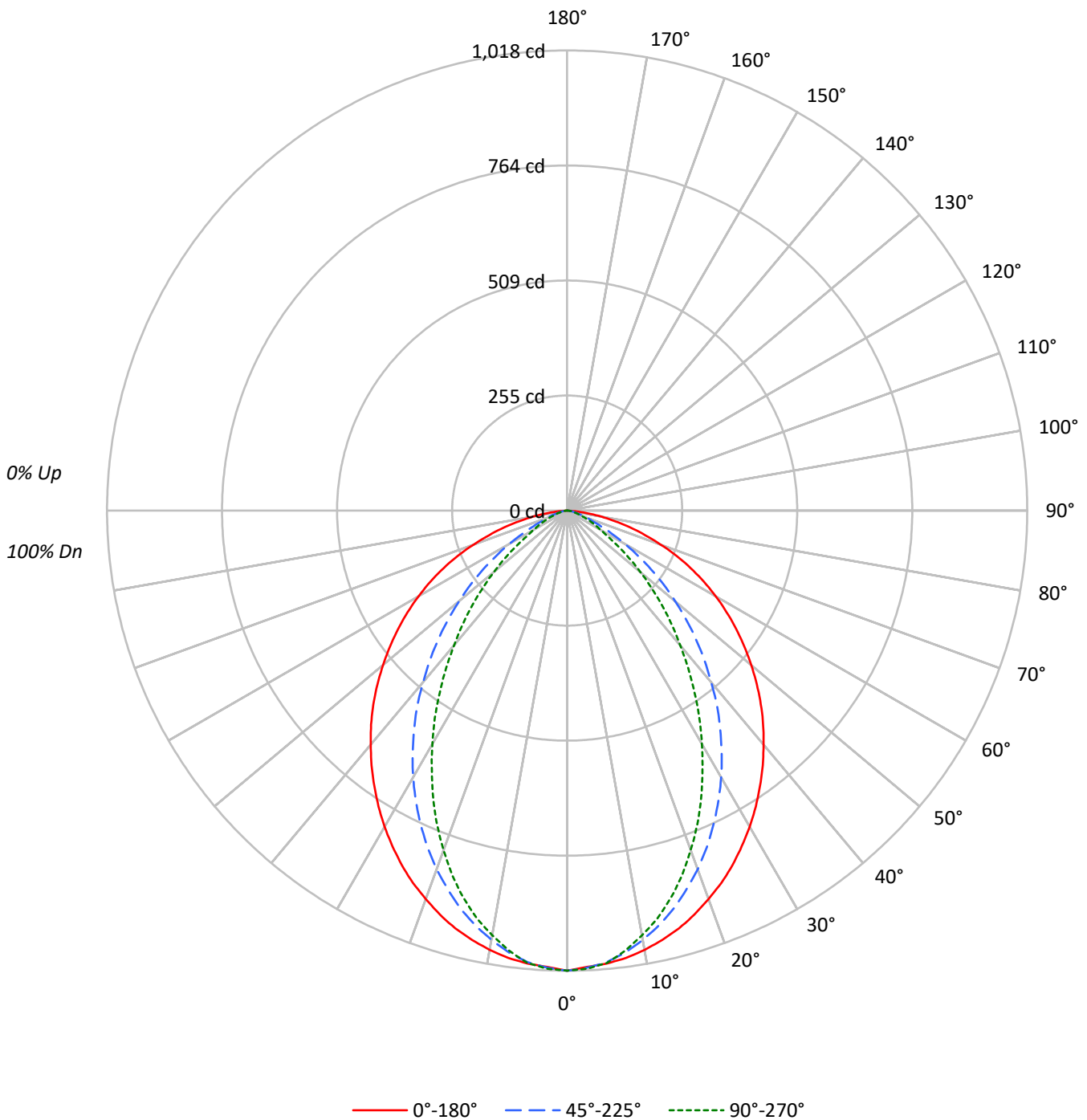
Lumens per Lamp: N/A
Luminaire Lumens: 1839.9 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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

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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	105	102	99	101	98	96		97	95	93		93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82		87	84	80		84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71		79	74	70		76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62		71	66	62		69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55		65	59	55		63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49		60	54	49		58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44		55	49	44		54	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	36	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°	7196	7196	7196
5°	7137	7117	7130
10°	7084	6921	6847
15°	7002	6670	6491
20°	6878	6353	6013
25°	6749	5977	5470
30°	6594	5563	4870
35°	6418	5092	4238
40°	6237	4575	3583
45°	6060	4033	2968
50°	5847	3431	2333
55°	5623	2788	1696
60°	5370	2078	1213
65°	5045	1372	947
70°	4560	955	661
75°	3966	617	516
80°	3106	460	423
85°	1606	381	308

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	5.2
10°-20°	257.8	14.0
20°-30°	356.4	19.4
30°-40°	377.6	20.5
40°-50°	329.6	17.9
50°-60°	234.4	12.7
60°-70°	130.4	7.1
70°-80°	50.1	2.7
80°-90°	8.7	0.5
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
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0°-30°	709.0	38.5
0°-40°	1086.6	59.1
0°-60°	1650.7	89.7
0°-90°	1839.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1839.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1006	1013	1003	1000	1005	95
15°	957	948	911	892	887	269
25°	865	836	766	719	701	398
35°	744	693	590	518	491	465
45°	606	534	403	322	297	467
55°	456	366	226	156	138	408
65°	302	198	82	60	57	298
75°	145	57	23	19	19	154
85°	20	6	5	4	4	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.9	1017.9	1017.9	1017.9	1017.9
2.5°	1010.4	1020.8	1012.3	1013.2	1014.2
5°	1005.7	1013.2	1002.9	1000.0	1004.7
7.5°	998.2	1003.8	985.9	979.3	982.1
10°	986.8	988.7	964.2	954.8	953.9
12.5°	972.7	969.9	939.7	924.6	923.7
15°	956.7	948.2	911.4	891.6	886.9
17.5°	936.9	923.7	878.4	853.0	845.5
20°	914.3	896.4	844.5	811.5	799.3
22.5°	891.6	867.1	806.8	765.3	752.1
25°	865.3	836.0	766.3	719.2	701.3
27.5°	837.0	802.1	724.8	670.1	648.5
30°	807.8	767.2	681.5	620.2	596.6
32.5°	776.7	730.5	636.2	569.3	544.8
35°	743.7	692.8	590.0	518.4	491.1
37.5°	710.7	654.1	544.8	468.4	440.2
40°	675.8	614.5	495.8	417.5	388.3
42.5°	641.9	574.0	449.6	369.5	343.1
45°	606.1	533.5	403.4	322.3	296.9
47.5°	569.3	491.1	357.2	278.0	252.6
50°	531.6	449.6	312.0	234.7	212.1
52.5°	493.9	408.1	269.6	193.2	173.4
55°	456.2	365.7	226.2	156.5	137.6
57.5°	418.5	324.2	185.7	122.5	105.6
60°	379.8	281.8	147.0	90.5	85.8
62.5°	341.2	240.3	114.0	74.5	70.7
65°	301.6	197.9	82.0	60.3	56.6
67.5°	262.0	159.3	59.4	46.2	43.4
70°	220.6	121.6	46.2	34.9	32.0
72.5°	181.0	87.7	33.0	25.4	24.5
75°	145.2	56.6	22.6	18.9	18.9
77.5°	109.3	33.9	16.0	14.1	14.1
80°	76.3	19.8	11.3	10.4	10.4
82.5°	46.2	10.4	7.5	6.6	6.6
85°	19.8	5.7	4.7	3.8	3.8
87.5°	3.8	1.9	1.9	1.9	1.9
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	18.02	19.46	18.38	19.78	20.09	10.65	12.10	11.02	12.41	12.73
	3H	19.58	20.86	19.96	21.19	21.56	11.22	12.51	11.60	12.83	13.20
	4H	20.10	21.30	20.50	21.65	22.03	11.34	12.55	11.74	12.90	13.28
	6H	20.44	21.54	20.85	21.91	22.30	11.41	12.52	11.82	12.88	13.28
	8H	20.52	21.57	20.95	21.96	22.36	11.41	12.47	11.84	12.86	13.26
	12H	20.54	21.55	20.97	21.93	22.36	11.41	12.41	11.84	12.79	13.22
4H	2H	17.91	19.12	18.32	19.47	19.85	11.22	12.42	11.62	12.77	13.15
	3H	19.58	20.57	19.99	20.97	21.37	11.89	12.88	12.31	13.28	13.68
	4H	20.13	21.01	20.56	21.43	21.87	12.05	12.93	12.49	13.35	13.79
	6H	20.52	21.29	20.98	21.73	22.19	12.16	12.93	12.62	13.37	13.83
	8H	20.63	21.34	21.09	21.79	22.26	12.17	12.89	12.64	13.33	13.80
	12H	20.68	21.31	21.16	21.79	22.26	12.18	12.81	12.66	13.29	13.76
8H	4H	20.03	20.75	20.50	21.19	21.66	12.32	13.03	12.79	13.48	13.95
	6H	20.42	21.01	20.92	21.50	21.98	12.45	13.04	12.95	13.53	14.01
	8H	20.53	21.05	21.05	21.57	22.06	12.48	13.01	13.00	13.52	14.01
	12H	20.59	21.06	21.10	21.55	22.12	12.51	12.97	13.02	13.46	14.03
12H	4H	20.00	20.63	20.48	21.11	21.58	12.34	12.97	12.82	13.45	13.92
	6H	20.37	20.89	20.89	21.41	21.90	12.47	12.99	12.98	13.50	13.99
	8H	20.50	20.96	21.01	21.45	22.02	12.53	12.99	13.04	13.48	14.05