

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: P1056422

Luminaire Tested: S125R3DR-S375D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056422
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-S375D850-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

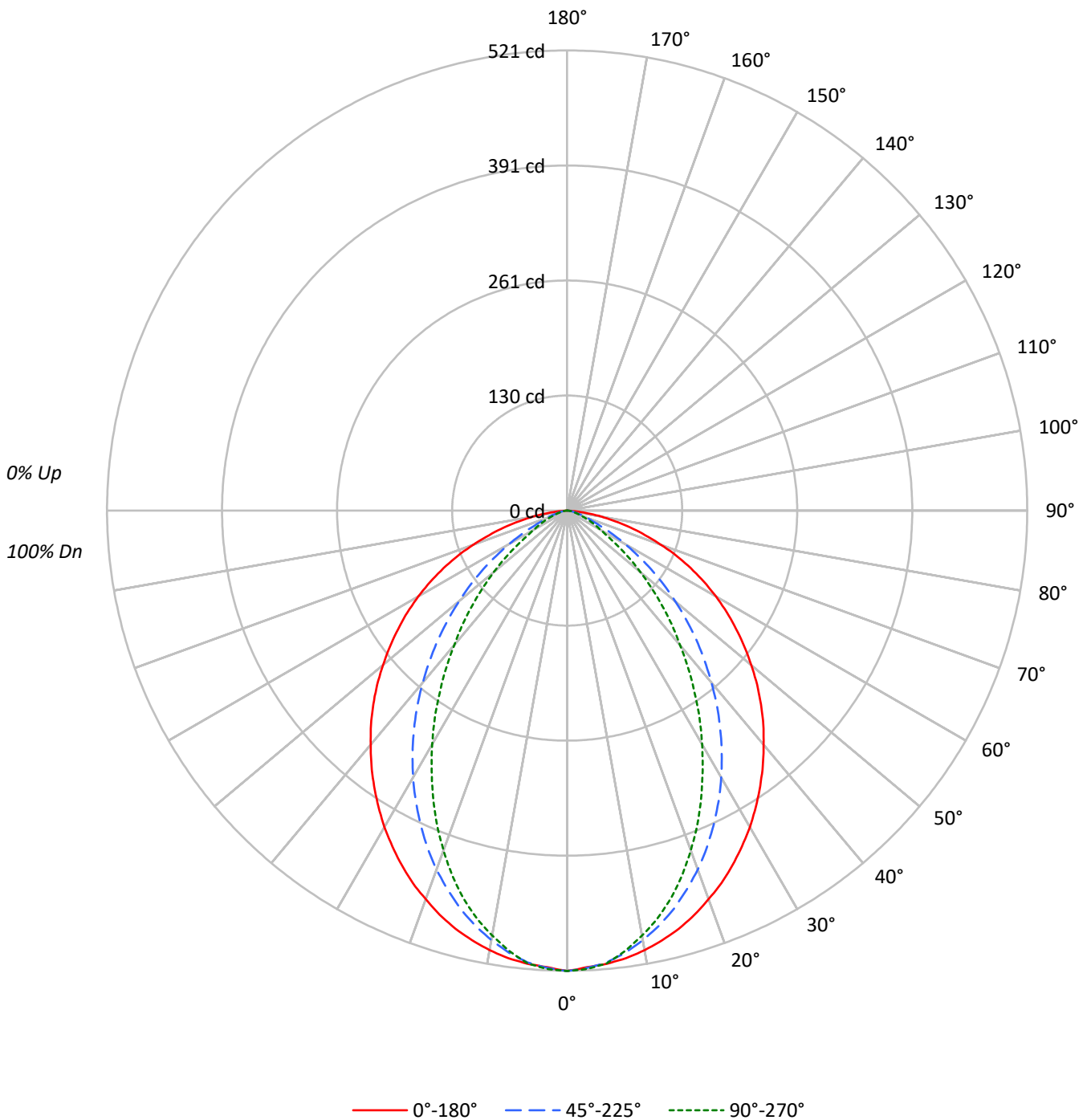
Lumens per Lamp: N/A
Luminaire Lumens: 942.3 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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°	3685	3685	3685
5°	3655	3645	3652
10°	3628	3545	3507
15°	3585	3416	3324
20°	3522	3254	3079
25°	3456	3061	2801
30°	3377	2849	2495
35°	3287	2608	2170
40°	3194	2343	1836
45°	3103	2065	1521
50°	2994	1757	1194
55°	2879	1427	869
60°	2750	1065	621
65°	2584	703	485
70°	2336	490	339
75°	2029	317	265
80°	1592	236	216
85°	819	195	154

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3103 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	5.2
10°-20°	132.0	14.0
20°-30°	182.5	19.4
30°-40°	193.4	20.5
40°-50°	168.8	17.9
50°-60°	120.1	12.7
60°-70°	66.8	7.1
70°-80°	25.7	2.7
80°-90°	4.5	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
0°-30°	363.1	38.5
0°-40°	556.5	59.1
0°-60°	845.4	89.7
0°-90°	942.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	942.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	521	521	521	521	521	
5°	515	519	514	512	515	49
15°	490	486	467	457	454	138
25°	443	428	392	368	359	204
35°	381	355	302	266	252	238
45°	310	273	207	165	152	239
55°	234	187	116	80	70	209
65°	154	101	42	31	29	153
75°	74	29	12	10	10	79
85°	10	3	2	2	2	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	521.3	521.3	521.3	521.3	521.3
2.5°	517.5	522.8	518.4	518.9	519.4
5°	515.0	518.9	513.6	512.1	514.6
7.5°	511.2	514.1	504.9	501.5	503.0
10°	505.4	506.4	493.8	489.0	488.5
12.5°	498.1	496.7	481.3	473.5	473.0
15°	489.9	485.6	466.8	456.6	454.2
17.5°	479.8	473.0	449.9	436.8	433.0
20°	468.2	459.0	432.5	415.6	409.3
22.5°	456.6	444.1	413.2	392.0	385.2
25°	443.1	428.2	392.4	368.3	359.1
27.5°	428.6	410.8	371.2	343.2	332.1
30°	413.7	392.9	349.0	317.6	305.6
32.5°	397.7	374.1	325.8	291.6	279.0
35°	380.9	354.8	302.2	265.5	251.5
37.5°	364.0	335.0	279.0	239.9	225.4
40°	346.1	314.7	253.9	213.8	198.9
42.5°	328.7	294.0	230.2	189.2	175.7
45°	310.4	273.2	206.6	165.1	152.1
47.5°	291.6	251.5	182.9	142.4	129.4
50°	272.2	230.2	159.8	120.2	108.6
52.5°	252.9	209.0	138.1	99.0	88.8
55°	233.6	187.3	115.8	80.1	70.5
57.5°	214.3	166.0	95.1	62.8	54.1
60°	194.5	144.3	75.3	46.3	43.9
62.5°	174.7	123.1	58.4	38.1	36.2
65°	154.5	101.4	42.0	30.9	29.0
67.5°	134.2	81.6	30.4	23.7	22.2
70°	113.0	62.3	23.7	17.9	16.4
72.5°	92.7	44.9	16.9	13.0	12.6
75°	74.3	29.0	11.6	9.7	9.7
77.5°	56.0	17.4	8.2	7.2	7.2
80°	39.1	10.1	5.8	5.3	5.3
82.5°	23.7	5.3	3.9	3.4	3.4
85°	10.1	2.9	2.4	1.9	1.9
87.5°	1.9	1.0	1.0	1.0	1.0
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	15.69	17.14	16.06	17.45	17.76	8.34	9.78	8.70	10.09	10.41
	3H	17.25	18.54	17.63	18.87	19.23	8.90	10.19	9.28	10.52	10.88
	4H	17.77	18.98	18.17	19.33	19.71	9.02	10.23	9.43	10.58	10.96
	6H	18.11	19.22	18.52	19.59	19.98	9.09	10.20	9.50	10.56	10.96
	8H	18.19	19.24	18.62	19.64	20.04	9.09	10.14	9.52	10.54	10.94
	12H	18.22	19.22	18.65	19.61	20.04	9.08	10.09	9.52	10.47	10.90
4H	2H	15.59	16.79	15.99	17.14	17.52	8.90	10.10	9.30	10.45	10.83
	3H	17.26	18.24	17.67	18.64	19.05	9.57	10.56	9.98	10.96	11.36
	4H	17.81	18.69	18.24	19.11	19.55	9.73	10.62	10.17	11.03	11.47
	6H	18.20	18.96	18.66	19.41	19.87	9.84	10.61	10.30	11.05	11.51
	8H	18.30	19.02	18.77	19.46	19.93	9.85	10.57	10.32	11.01	11.48
	12H	18.35	18.98	18.83	19.46	19.94	9.86	10.49	10.34	10.97	11.44
8H	4H	17.71	18.42	18.18	18.87	19.34	10.00	10.71	10.47	11.16	11.63
	6H	18.10	18.68	18.59	19.17	19.65	10.13	10.72	10.63	11.21	11.69
	8H	18.20	18.73	18.72	19.24	19.73	10.16	10.69	10.68	11.20	11.69
	12H	18.27	18.73	18.78	19.22	19.79	10.18	10.65	10.70	11.14	11.71
12H	4H	17.67	18.31	18.16	18.79	19.26	10.02	10.65	10.50	11.13	11.60
	6H	18.04	18.57	18.56	19.08	19.57	10.14	10.67	10.66	11.18	11.67
	8H	18.17	18.63	18.68	19.13	19.70	10.20	10.67	10.72	11.16	11.73