

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: P1056530

Luminaire Tested: S125R3DR-H1270D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056530
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-H1270D850-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

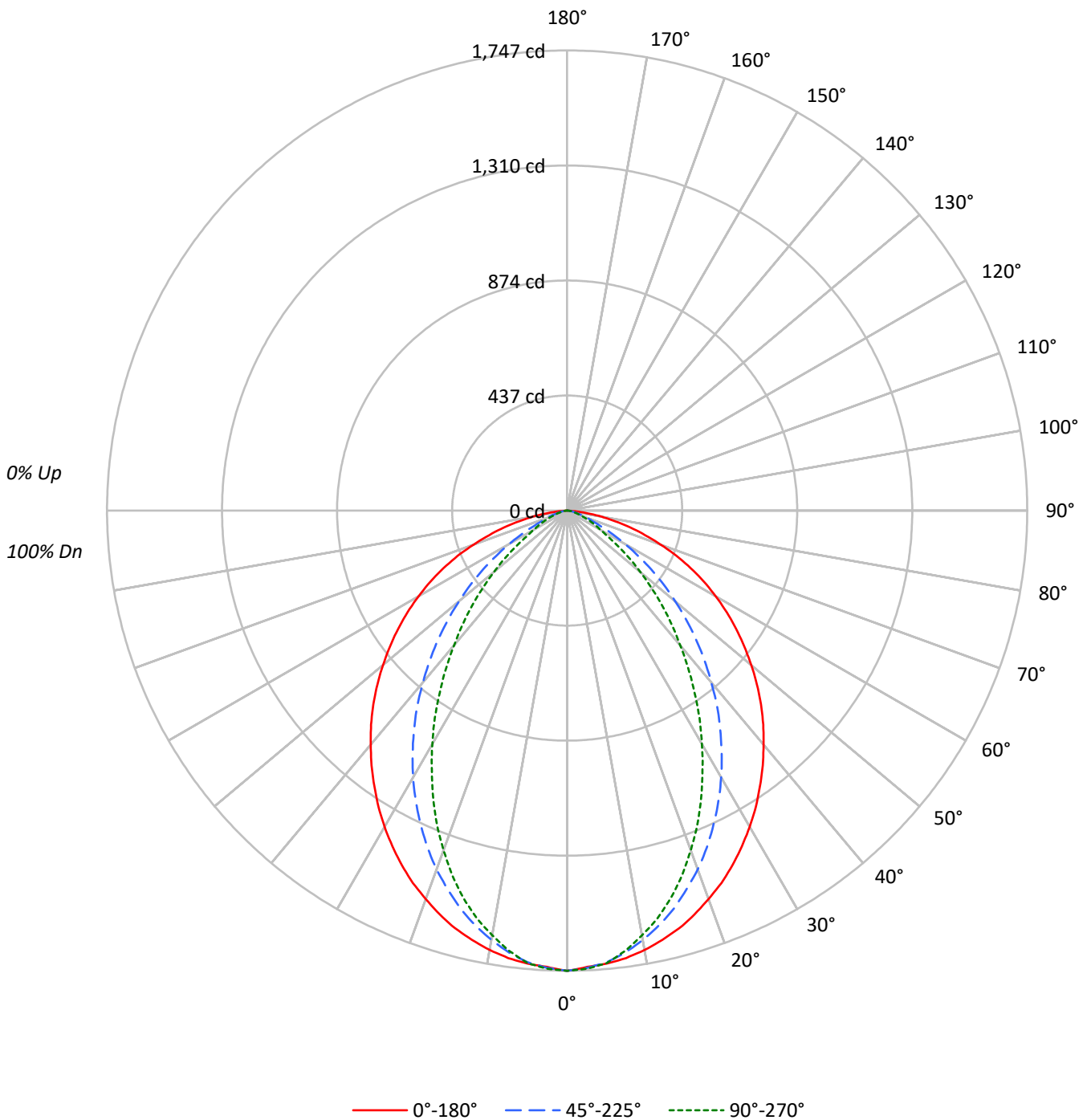
Lumens per Lamp: N/A
Luminaire Lumens: 3158.2 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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°	12352	12352	12352
5°	12250	12216	12239
10°	12159	11881	11753
15°	12019	11450	11142
20°	11807	10905	10322
25°	11585	10260	9389
30°	11318	9548	8360
35°	11016	8741	7274
40°	10705	7853	6152
45°	10400	6923	5095
50°	10036	5889	4003
55°	9652	4786	2911
60°	9218	3569	2081
65°	8660	2355	1624
70°	7825	1639	1137
75°	6807	1060	885
80°	5333	790	725
85°	2758	657	527

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10400 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.7	5.2
10°-20°	442.5	14.0
20°-30°	611.8	19.4
30°-40°	648.2	20.5
40°-50°	565.8	17.9
50°-60°	402.4	12.7
60°-70°	223.8	7.1
70°-80°	86.0	2.7
80°-90°	14.9	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°	1217.0	38.5
0°-40°	1865.3	59.1
0°-60°	2833.4	89.7
0°-90°	3158.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3158.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1747	1747	1747	1747	1747	
5°	1726	1739	1721	1717	1725	164
15°	1642	1628	1564	1530	1522	463
25°	1485	1435	1315	1234	1204	684
35°	1276	1189	1013	890	843	799
45°	1040	916	692	553	510	802
55°	783	628	388	269	236	700
65°	518	340	141	104	97	512
75°	249	97	39	32	32	264
85°	34	10	8	6	6	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1747.3	1747.3	1747.3	1747.3	1747.3
2.5°	1734.4	1752.2	1737.6	1739.2	1740.9
5°	1726.3	1739.2	1721.4	1716.6	1724.7
7.5°	1713.4	1723.1	1692.3	1681.0	1685.9
10°	1693.9	1697.2	1655.1	1638.9	1637.3
12.5°	1669.7	1664.8	1613.0	1587.2	1585.5
15°	1642.2	1627.6	1564.5	1530.5	1522.4
17.5°	1608.2	1585.5	1507.9	1464.2	1451.3
20°	1569.4	1538.6	1449.6	1393.0	1372.0
22.5°	1530.5	1488.5	1384.9	1313.7	1291.1
25°	1485.2	1435.1	1315.4	1234.5	1203.7
27.5°	1436.7	1376.8	1244.2	1150.3	1113.1
30°	1386.5	1317.0	1169.7	1064.6	1024.1
32.5°	1333.1	1253.9	1092.1	977.2	935.1
35°	1276.5	1189.2	1012.8	889.8	842.9
37.5°	1219.9	1122.8	935.1	804.1	755.6
40°	1160.0	1054.9	851.0	716.7	666.6
42.5°	1101.8	985.3	771.7	634.2	588.9
45°	1040.3	915.7	692.5	553.3	509.6
47.5°	977.2	842.9	613.2	477.3	433.6
50°	912.5	771.7	535.5	402.9	364.0
52.5°	847.8	700.6	462.7	331.7	297.7
55°	783.1	627.7	388.3	268.6	236.2
57.5°	718.3	556.6	318.7	210.3	181.2
60°	652.0	483.8	252.4	155.3	147.2
62.5°	585.7	412.6	195.8	127.8	121.3
65°	517.7	339.8	140.8	103.5	97.1
67.5°	449.8	273.4	101.9	79.3	74.4
70°	378.6	208.7	79.3	59.9	55.0
72.5°	310.6	150.5	56.6	43.7	42.1
75°	249.2	97.1	38.8	32.4	32.4
77.5°	187.7	58.2	27.5	24.3	24.3
80°	131.0	34.0	19.4	17.8	17.8
82.5°	79.3	17.8	12.9	11.3	11.3
85°	34.0	9.7	8.1	6.5	6.5
87.5°	6.5	3.2	3.2	3.2	3.2
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	19.90	21.34	20.26	21.65	21.97	12.53	13.98	12.90	14.29	14.61
	3H	21.45	22.74	21.83	23.07	23.43	13.10	14.38	13.47	14.71	15.08
	4H	21.98	23.18	22.38	23.53	23.91	13.22	14.42	13.62	14.77	15.15
	6H	22.31	23.42	22.73	23.79	24.18	13.29	14.39	13.70	14.76	15.15
	8H	22.40	23.45	22.82	23.84	24.24	13.29	14.34	13.72	14.73	15.14
	12H	22.42	23.43	22.85	23.81	24.24	13.28	14.29	13.71	14.67	15.10
4H	2H	19.79	20.99	20.19	21.34	21.72	13.10	14.30	13.50	14.65	15.03
	3H	21.46	22.45	21.87	22.85	23.25	13.77	14.76	14.18	15.16	15.56
	4H	22.01	22.89	22.44	23.31	23.75	13.93	14.81	14.36	15.23	15.67
	6H	22.40	23.16	22.86	23.61	24.07	14.04	14.80	14.50	15.25	15.71
	8H	22.51	23.22	22.97	23.66	24.13	14.05	14.77	14.52	15.21	15.68
	12H	22.55	23.19	23.04	23.67	24.14	14.05	14.69	14.54	15.17	15.64
8H	4H	21.91	22.62	22.38	23.07	23.54	14.20	14.91	14.66	15.36	15.83
	6H	22.30	22.88	22.80	23.38	23.86	14.33	14.92	14.83	15.41	15.89
	8H	22.41	22.93	22.92	23.44	23.93	14.36	14.88	14.88	15.40	15.89
	12H	22.47	22.93	22.98	23.43	23.99	14.38	14.85	14.89	15.34	15.91
12H	4H	21.87	22.51	22.36	22.99	23.46	14.21	14.85	14.70	15.33	15.80
	6H	22.24	22.77	22.76	23.28	23.77	14.34	14.87	14.86	15.38	15.87
	8H	22.37	22.84	22.89	23.33	23.90	14.40	14.87	14.91	15.36	15.93