

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: P1056531

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056531
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
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-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

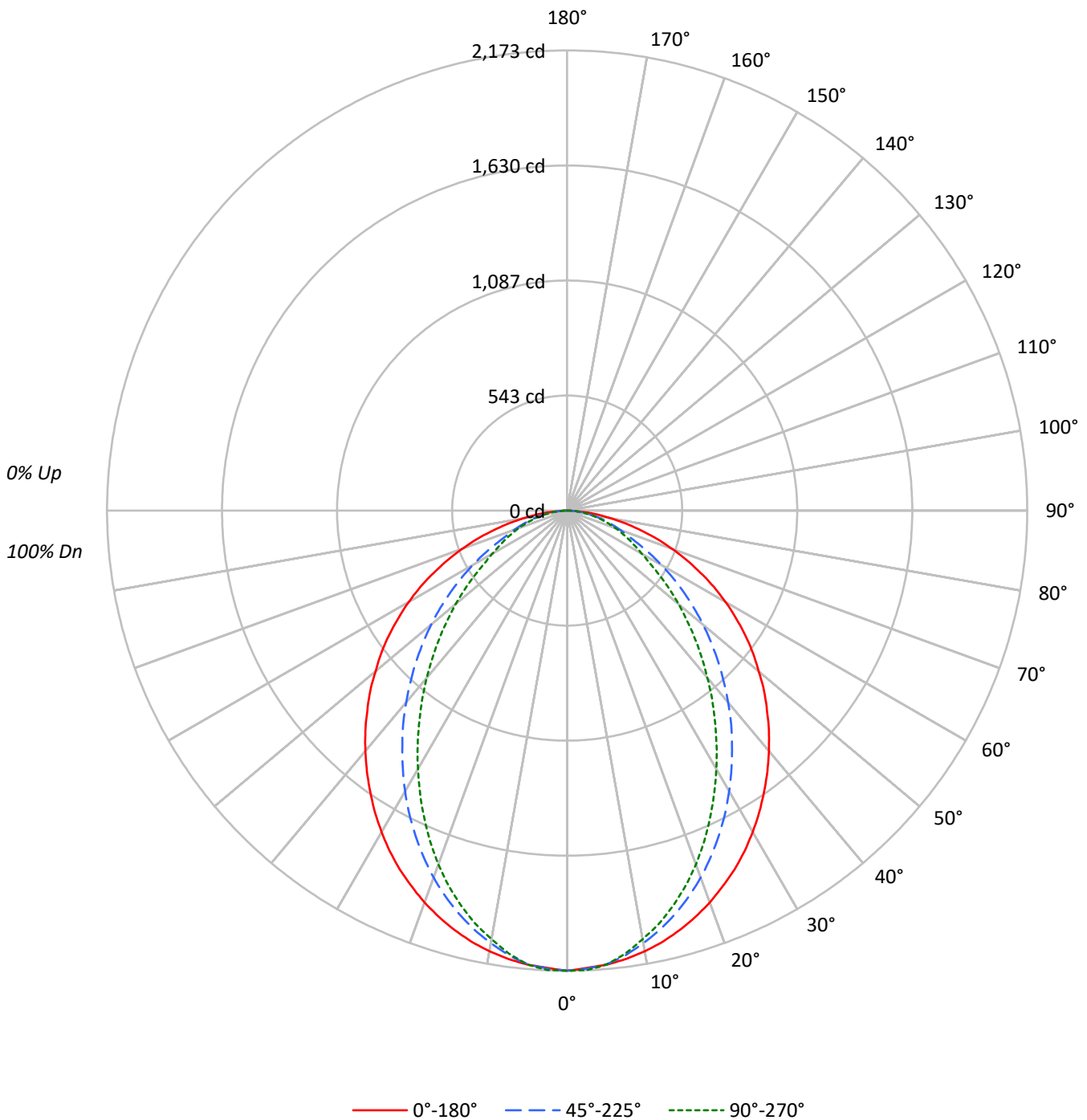
Lumens per Lamp: N/A
Luminaire Lumens: 4605.3 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1056531

CATALOG NUMBER: S125R3DR-H1270D850-X4F0-XX-UDD-F-W

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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15360	15360	15360
5°	15270	15259	15270
10°	15168	14889	14749
15°	15014	14434	14138
20°	14813	13875	13377
25°	14589	13213	12469
30°	14303	12493	11503
35°	13990	11714	10500
40°	13676	10914	9511
45°	13345	10078	8524
50°	12990	9217	7545
55°	12663	8275	6561
60°	12216	7274	5764
65°	11611	6171	5358
70°	10901	5519	5016
75°	9855	5083	4728
80°	8561	4613	4413
85°	6692	4072	4072

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13345 cd/sqm

TEST NUMBER: P1056531

CATALOG NUMBER: S125R3DR-H1270D850-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.3	4.4
10°-20°	558.2	12.1
20°-30°	788.5	17.1
30°-40°	868.1	18.8
40°-50°	809.7	17.6
50°-60°	646.4	14.0
60°-70°	435.0	9.4
70°-80°	231.7	5.0
80°-90°	64.4	1.4
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°	1550.0	33.7
0°-40°	2418.1	52.5
0°-60°	3874.2	84.1
0°-90°	4605.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4605.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2173	2173	2173	2173	2173	
5°	2152	2170	2150	2144	2152	204
15°	2052	2040	1972	1938	1932	578
25°	1870	1814	1694	1620	1598	861
35°	1621	1526	1357	1251	1217	1014
45°	1335	1209	1008	885	853	1031
55°	1027	872	671	565	532	917
65°	694	542	369	327	320	688
75°	361	239	186	175	173	384
85°	82	57	50	52	50	99
90°	0	0	0	0	0	

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CATALOG NUMBER: S125R3DR-H1270D850-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2172.8	2172.8	2172.8	2172.8	2172.8
2.5°	2161.5	2179.3	2164.8	2168.0	2171.2
5°	2151.8	2169.6	2150.2	2143.7	2151.8
7.5°	2135.6	2150.2	2117.8	2103.3	2109.7
10°	2113.0	2122.7	2074.1	2054.7	2054.7
12.5°	2085.5	2085.5	2027.2	1999.7	1999.7
15°	2051.5	2040.2	1972.2	1938.2	1931.8
17.5°	2012.7	1991.6	1910.7	1867.1	1859.0
20°	1969.0	1935.0	1844.4	1787.8	1778.1
22.5°	1920.4	1876.8	1771.6	1702.0	1690.7
25°	1870.3	1813.7	1693.9	1619.5	1598.5
27.5°	1813.7	1745.7	1614.7	1530.5	1504.6
30°	1752.2	1674.5	1530.5	1436.7	1409.2
32.5°	1689.1	1601.7	1444.8	1344.5	1313.7
35°	1621.1	1525.7	1357.4	1250.6	1216.7
37.5°	1553.2	1449.6	1271.7	1160.0	1124.4
40°	1482.0	1368.7	1182.7	1067.8	1030.6
42.5°	1410.8	1289.5	1095.3	978.8	940.0
45°	1334.8	1208.6	1008.0	885.0	852.6
47.5°	1262.0	1126.1	922.2	802.5	766.9
50°	1181.1	1040.3	838.1	718.3	686.0
52.5°	1106.6	956.2	753.9	642.3	608.3
55°	1027.4	872.0	671.4	564.6	532.3
57.5°	944.9	787.9	592.2	491.8	461.1
60°	864.0	703.8	514.5	422.3	407.7
62.5°	781.4	624.5	441.7	370.5	360.8
65°	694.1	542.0	368.9	326.8	320.3
67.5°	611.6	462.7	310.6	286.4	279.9
70°	527.4	383.4	267.0	245.9	242.7
72.5°	444.9	307.4	224.9	210.3	207.1
75°	360.8	239.4	186.1	174.7	173.1
77.5°	283.1	179.6	147.2	142.4	139.1
80°	210.3	134.3	113.3	110.0	108.4
82.5°	144.0	92.2	80.9	80.9	77.7
85°	82.5	56.6	50.2	51.8	50.2
87.5°	30.7	24.3	22.7	24.3	24.3
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	20.78	22.32	21.14	22.63	22.95	17.16	18.70	17.53	19.01	19.33
	3H	22.56	23.95	22.94	24.28	24.64	18.64	20.02	19.02	20.35	20.71
	4H	23.22	24.52	23.62	24.87	25.24	19.23	20.53	19.63	20.88	21.25
	6H	23.69	24.90	24.11	25.26	25.65	19.69	20.89	20.10	21.26	21.65
	8H	23.85	24.99	24.27	25.38	25.78	19.85	20.99	20.28	21.38	21.79
	12H	23.94	25.04	24.37	25.42	25.85	19.97	21.06	20.40	21.44	21.87
4H	2H	20.91	22.21	21.31	22.56	22.94	17.84	19.14	18.24	19.49	19.86
	3H	22.88	23.96	23.29	24.36	24.77	19.52	20.60	19.93	21.00	21.40
	4H	23.63	24.60	24.06	25.02	25.46	20.22	21.19	20.65	21.61	22.05
	6H	24.22	25.07	24.68	25.51	25.97	20.80	21.65	21.26	22.09	22.55
	8H	24.43	25.22	24.89	25.67	26.13	21.01	21.81	21.48	22.25	22.72
	12H	24.58	25.29	25.06	25.76	26.24	21.17	21.88	21.66	22.36	22.83
8H	4H	23.69	24.49	24.16	24.93	25.40	20.58	21.38	21.05	21.82	22.29
	6H	24.35	25.01	24.85	25.50	25.98	21.28	21.94	21.78	22.43	22.91
	8H	24.61	25.20	25.12	25.70	26.19	21.57	22.16	22.08	22.67	23.15
	12H	24.81	25.34	25.32	25.83	26.39	21.81	22.33	22.32	22.82	23.39
12H	4H	23.69	24.39	24.17	24.87	25.34	20.63	21.34	21.11	21.82	22.29
	6H	24.35	24.94	24.86	25.45	25.93	21.36	21.95	21.87	22.46	22.94
	8H	24.64	25.16	25.15	25.65	26.22	21.70	22.22	22.21	22.71	23.28