

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: P1056369

Luminaire Tested: S125R3DR-S1090D850-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056369
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-S1090D850-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

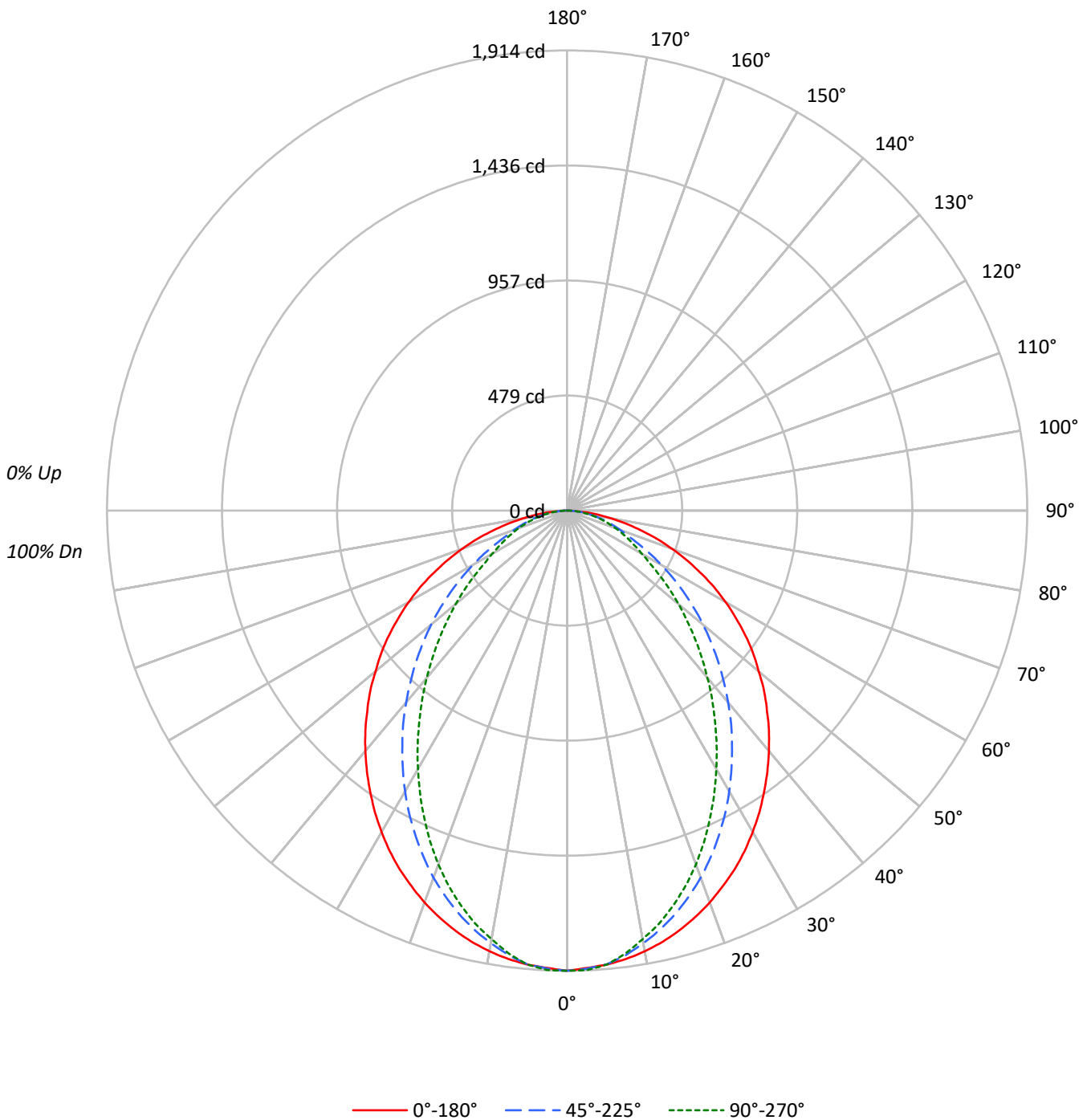
Lumens per Lamp: N/A
Luminaire Lumens: 4056.6 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	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°	13531	13531	13531
5°	13450	13440	13450
10°	13360	13115	12992
15°	13226	12714	12454
20°	13048	12223	11783
25°	12851	11639	10983
30°	12599	11005	10133
35°	12324	10319	9249
40°	12047	9614	8378
45°	11754	8877	7508
50°	11442	8119	6646
55°	11154	7289	5779
60°	10760	6408	5077
65°	10227	5435	4720
70°	9603	4859	4419
75°	8680	4477	4165
80°	7544	4063	3888
85°	5897	3585	3585

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11754 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.1	4.4
10°-20°	491.7	12.1
20°-30°	694.6	17.1
30°-40°	764.6	18.8
40°-50°	713.3	17.6
50°-60°	569.4	14.0
60°-70°	383.2	9.4
70°-80°	204.1	5.0
80°-90°	56.7	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°	1365.4	33.7
0°-40°	2130.0	52.5
0°-60°	3412.6	84.1
0°-90°	4056.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4056.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1914	1914	1914	1914	1914	
5°	1895	1911	1894	1888	1895	180
15°	1807	1797	1737	1707	1702	509
25°	1648	1598	1492	1427	1408	758
35°	1428	1344	1196	1102	1072	894
45°	1176	1065	888	780	751	908
55°	905	768	591	497	469	808
65°	611	477	325	288	282	606
75°	318	211	164	154	152	339
85°	73	50	44	46	44	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1914.0	1914.0	1914.0	1914.0	1914.0
2.5°	1904.0	1919.7	1906.8	1909.7	1912.5
5°	1895.4	1911.1	1894.0	1888.3	1895.4
7.5°	1881.2	1894.0	1865.5	1852.7	1858.4
10°	1861.2	1869.8	1827.0	1809.9	1809.9
12.5°	1837.0	1837.0	1785.7	1761.5	1761.5
15°	1807.1	1797.1	1737.2	1707.3	1701.6
17.5°	1772.9	1754.3	1683.1	1644.6	1637.5
20°	1734.4	1704.5	1624.7	1574.8	1566.2
22.5°	1691.6	1653.2	1560.5	1499.2	1489.3
25°	1647.5	1597.6	1492.1	1426.6	1408.0
27.5°	1597.6	1537.7	1422.3	1348.2	1325.4
30°	1543.4	1475.0	1348.2	1265.5	1241.3
32.5°	1487.8	1410.9	1272.6	1184.3	1157.2
35°	1428.0	1343.9	1195.7	1101.6	1071.7
37.5°	1368.1	1276.9	1120.2	1021.8	990.5
40°	1305.4	1205.7	1041.8	940.6	907.8
42.5°	1242.7	1135.8	964.8	862.2	828.0
45°	1175.7	1064.6	887.9	779.6	751.0
47.5°	1111.6	991.9	812.3	706.9	675.5
50°	1040.4	916.4	738.2	632.8	604.3
52.5°	974.8	842.3	664.1	565.8	535.9
55°	905.0	768.1	591.4	497.4	468.9
57.5°	832.3	694.0	521.6	433.2	406.2
60°	761.0	619.9	453.2	372.0	359.1
62.5°	688.3	550.1	389.1	326.4	317.8
65°	611.4	477.4	324.9	287.9	282.2
67.5°	538.7	407.6	273.6	252.2	246.5
70°	464.6	337.8	235.1	216.6	213.8
72.5°	391.9	270.8	198.1	185.3	182.4
75°	317.8	210.9	163.9	153.9	152.5
77.5°	249.4	158.2	129.7	125.4	122.6
80°	185.3	118.3	99.8	96.9	95.5
82.5°	126.8	81.2	71.3	71.3	68.4
85°	72.7	49.9	44.2	45.6	44.2
87.5°	27.1	21.4	20.0	21.4	21.4
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	20.34	21.88	20.70	22.19	22.51	16.72	18.26	17.09	18.57	18.89
	3H	22.12	23.51	22.50	23.84	24.20	18.20	19.58	18.57	19.91	20.27
	4H	22.78	24.08	23.18	24.42	24.80	18.79	20.09	19.19	20.43	20.81
	6H	23.25	24.45	23.67	24.82	25.21	19.25	20.45	19.66	20.82	21.21
	8H	23.41	24.55	23.83	24.94	25.34	19.41	20.55	19.84	20.94	21.34
	12H	23.50	24.60	23.93	24.98	25.41	19.52	20.62	19.95	21.00	21.43
4H	2H	20.47	21.77	20.87	22.12	22.50	17.40	18.70	17.80	19.04	19.42
	3H	22.44	23.52	22.85	23.92	24.32	19.07	20.16	19.48	20.55	20.96
	4H	23.19	24.16	23.62	24.58	25.02	19.78	20.75	20.21	21.17	21.60
	6H	23.78	24.63	24.24	25.07	25.53	20.36	21.21	20.82	21.65	22.11
	8H	23.99	24.78	24.45	25.23	25.69	20.57	21.36	21.03	21.81	22.28
	12H	24.14	24.85	24.62	25.32	25.79	20.73	21.44	21.21	21.92	22.39
8H	4H	23.25	24.04	23.71	24.49	24.96	20.14	20.93	20.60	21.38	21.85
	6H	23.91	24.57	24.41	25.06	25.54	20.84	21.50	21.34	21.99	22.47
	8H	24.17	24.75	24.68	25.26	25.75	21.13	21.72	21.64	22.23	22.71
	12H	24.37	24.89	24.88	25.39	25.95	21.37	21.89	21.88	22.38	22.95
12H	4H	23.24	23.95	23.73	24.43	24.90	20.19	20.90	20.67	21.38	21.85
	6H	23.91	24.50	24.42	25.01	25.49	20.92	21.51	21.43	22.01	22.50
	8H	24.20	24.72	24.71	25.21	25.78	21.26	21.78	21.77	22.27	22.84