

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: P1056364

Luminaire Tested: S125R3DR-S1090D840-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056364
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1090D840-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

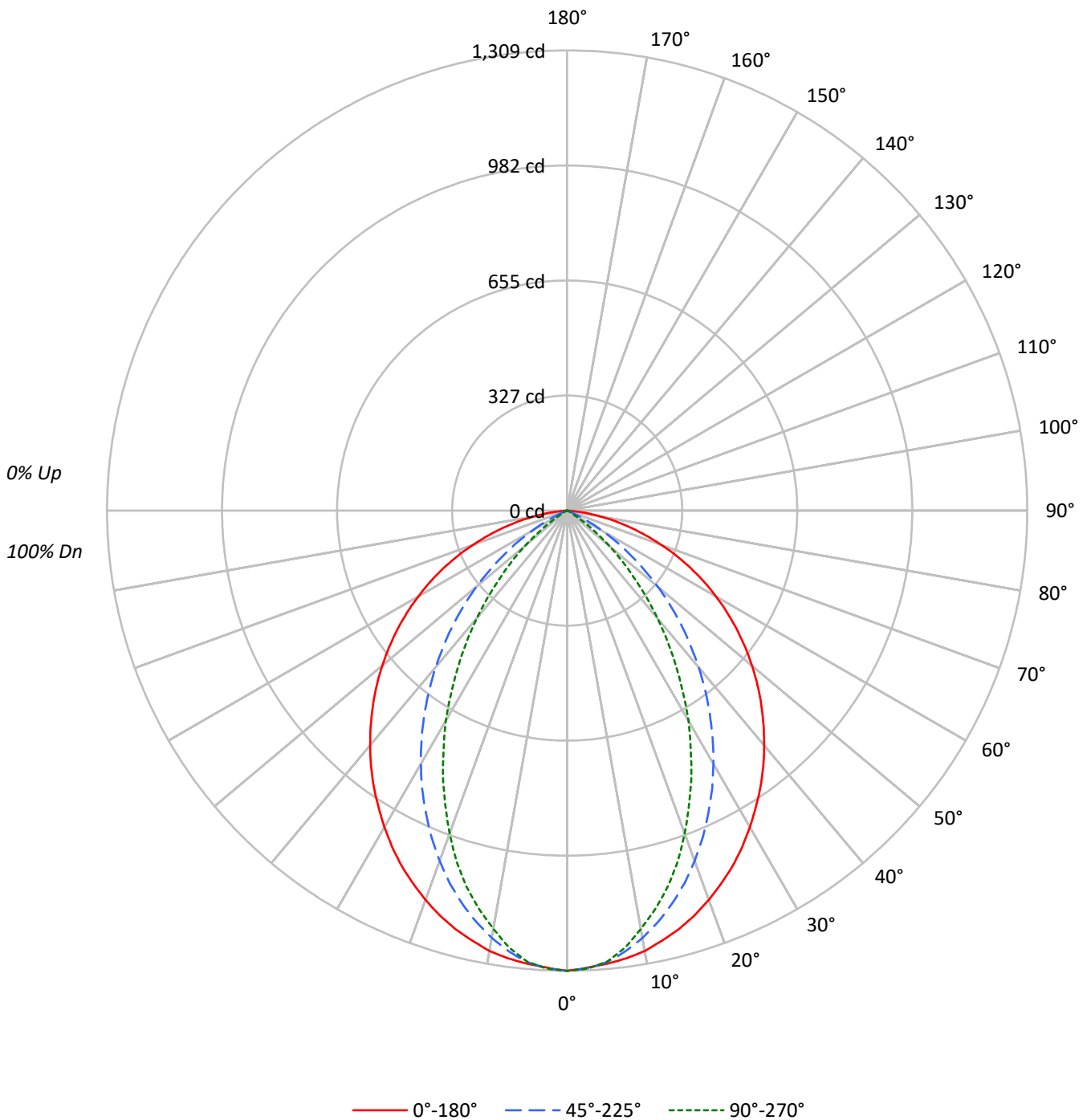
Lumens per Lamp: N/A
Luminaire Lumens: 2122.4 lumens
Efficiency: N/A
Efficacy: 61.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	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					100			
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9257	9257	9257
5°	9182	9154	9145
10°	9129	8860	8673
15°	9014	8463	8102
20°	8865	7977	7352
25°	8696	7409	6519
30°	8485	6791	5636
35°	8276	6104	4659
40°	8048	5365	3689
45°	7810	4580	2672
50°	7550	3696	1727
55°	7262	2703	768
60°	6918	1670	221
65°	6490	607	130
70°	5874	215	54
75°	5105	71	36
80°	3908	53	0
85°	1793	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7810 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	5.7
10°-20°	326.6	15.4
20°-30°	441.8	20.8
30°-40°	453.9	21.4
40°-50°	376.0	17.7
50°-60°	241.4	11.4
60°-70°	116.6	5.5
70°-80°	39.5	1.9
80°-90°	5.1	0.2
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°	890.0	41.9
0°-40°	1343.9	63.3
0°-60°	1961.3	92.4
0°-90°	2122.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2122.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1309	1309	1309	1309	1309	
5°	1294	1304	1290	1282	1289	123
15°	1232	1216	1156	1116	1107	347
25°	1115	1060	950	864	836	513
35°	959	867	707	584	540	600
45°	781	653	458	317	267	602
55°	589	432	219	96	62	527
65°	388	214	36	10	8	384
75°	187	40	3	1	1	198
85°	22	0	0	0	0	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.4	1309.4	1309.4	1309.4	1309.4
2.5°	1301.6	1312.0	1302.9	1301.6	1304.2
5°	1293.9	1304.2	1290.0	1282.2	1288.7
7.5°	1284.8	1290.0	1265.3	1252.3	1254.9
10°	1271.8	1270.5	1234.2	1212.1	1208.2
12.5°	1252.3	1245.8	1197.8	1166.7	1160.2
15°	1231.6	1216.0	1156.3	1116.1	1107.0
17.5°	1206.9	1182.2	1110.9	1059.0	1046.0
20°	1178.4	1144.6	1060.3	996.7	977.2
22.5°	1147.2	1104.4	1007.1	931.8	905.8
25°	1114.8	1060.3	949.9	864.3	835.7
27.5°	1078.4	1014.8	892.8	795.5	760.5
30°	1039.5	966.8	831.9	725.4	690.4
32.5°	999.3	918.8	770.9	655.4	612.5
35°	959.0	866.9	707.3	584.0	539.9
37.5°	916.2	815.0	645.0	516.5	468.5
40°	872.1	761.8	581.4	446.4	399.7
42.5°	826.7	707.3	517.8	380.2	332.2
45°	781.2	652.8	458.1	316.6	267.3
47.5°	734.5	597.0	395.8	254.4	211.5
50°	686.5	542.5	336.1	198.6	157.0
52.5°	638.5	486.7	275.1	144.0	106.4
55°	589.2	432.1	219.3	96.0	62.3
57.5°	539.9	376.3	167.4	53.2	23.4
60°	489.3	323.1	118.1	18.2	15.6
62.5°	439.9	266.0	74.0	14.3	11.7
65°	388.0	214.1	36.3	10.4	7.8
67.5°	337.4	164.8	15.6	6.5	3.9
70°	284.2	119.4	10.4	3.9	2.6
72.5°	234.9	76.6	6.5	2.6	1.3
75°	186.9	40.2	2.6	1.3	1.3
77.5°	140.2	16.9	1.3	1.3	1.3
80°	96.0	7.8	1.3	1.3	0.0
82.5°	57.1	2.6	1.3	1.3	0.0
85°	22.1	0.0	0.0	0.0	0.0
87.5°	1.3	0.0	0.0	0.0	0.0
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	18.80	20.18	19.16	20.50	20.81	3.67	5.05	4.03	5.36	5.68
	3H	20.35	21.58	20.73	21.91	22.27	3.59	4.82	3.97	5.14	5.51
	4H	20.87	22.02	21.27	22.37	22.75	3.52	4.67	3.92	5.02	5.40
	6H	21.21	22.26	21.63	22.63	23.03	3.45	4.50	3.87	4.87	5.27
	8H	21.29	22.29	21.72	22.68	23.08	3.41	4.41	3.84	4.80	5.20
	12H	21.31	22.26	21.74	22.65	23.08	3.37	4.32	3.80	4.71	5.14
4H	2H	18.60	19.75	19.00	20.10	20.48	4.53	5.67	4.93	6.02	6.40
	3H	20.22	21.15	20.63	21.55	21.96	4.48	5.41	4.89	5.81	6.22
	4H	20.74	21.57	21.17	21.99	22.43	4.40	5.23	4.83	5.65	6.09
	6H	21.11	21.83	21.58	22.28	22.74	4.33	5.05	4.80	5.50	5.96
	8H	21.21	21.88	21.68	22.33	22.80	4.28	4.95	4.75	5.40	5.87
	12H	21.25	21.84	21.73	22.32	22.80	4.24	4.83	4.73	5.32	5.79
8H	4H	20.61	21.28	21.08	21.73	22.20	5.42	6.09	5.89	6.54	7.01
	6H	20.97	21.52	21.47	22.01	22.49	5.34	5.89	5.84	6.38	6.86
	8H	21.06	21.55	21.58	22.07	22.56	5.29	5.78	5.81	6.29	6.78
	12H	21.11	21.54	21.62	22.03	22.60	5.25	5.68	5.76	6.18	6.75
12H	4H	20.57	21.16	21.05	21.64	22.12	5.50	6.09	5.99	6.58	7.05
	6H	20.91	21.40	21.43	21.91	22.41	5.40	5.90	5.92	6.41	6.90
	8H	21.02	21.46	21.53	21.95	22.52	5.37	5.81	5.88	6.30	6.87