

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: P1056568

Luminaire Tested: S125R3DR-H375D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056568
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-H375D940-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

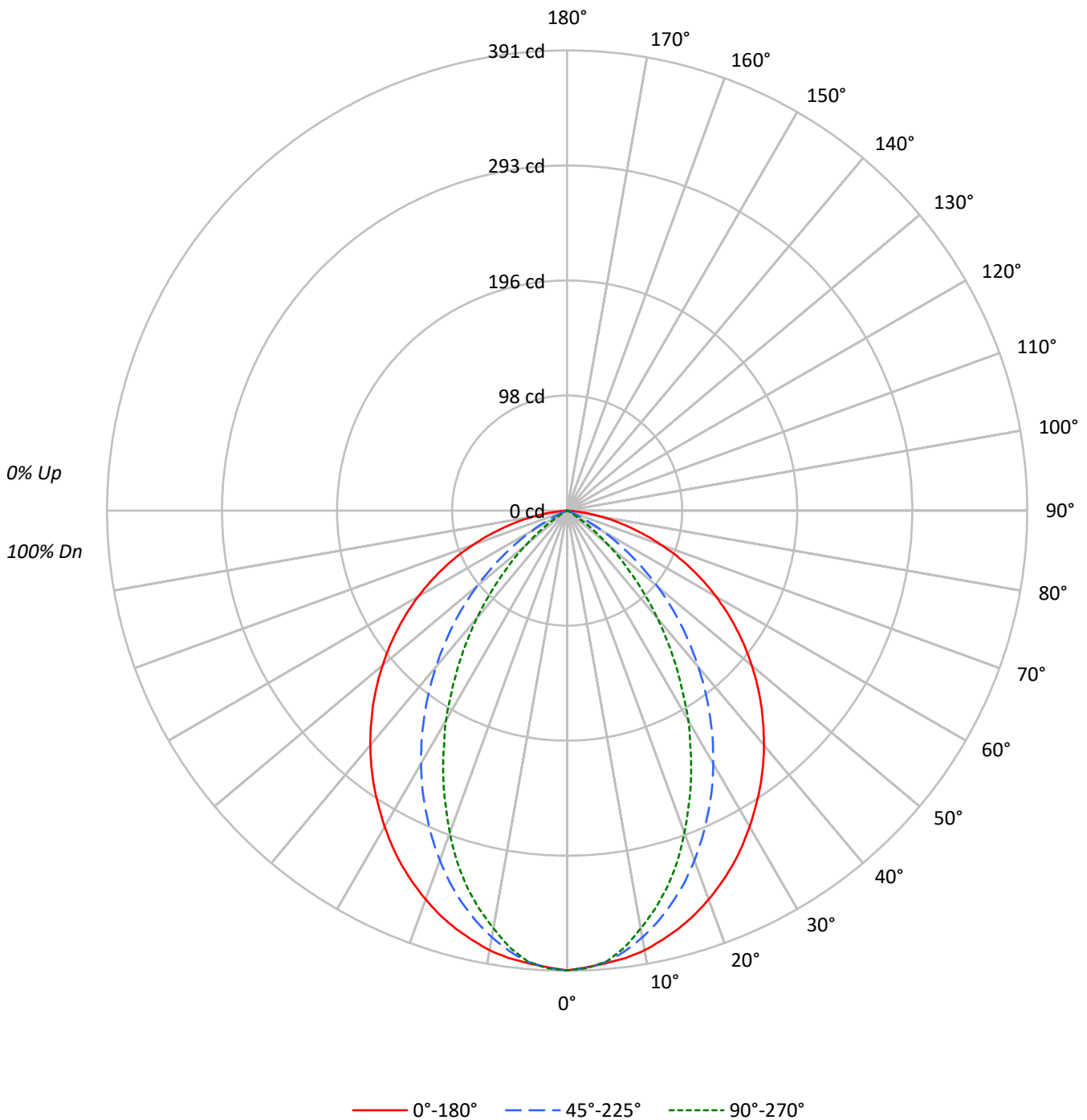
Lumens per Lamp: N/A
Luminaire Lumens: 633.2 lumens
Efficiency: N/A
Efficacy: 54.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2762	2762	2762
5°	2739	2731	2729
10°	2723	2643	2588
15°	2689	2525	2417
20°	2645	2380	2193
25°	2594	2211	1945
30°	2531	2026	1682
35°	2469	1821	1390
40°	2401	1601	1100
45°	2330	1367	798
50°	2252	1103	515
55°	2167	806	229
60°	2064	498	65
65°	1937	181	38
70°	1753	64	17
75°	1524	22	11
80°	1168	16	0
85°	535	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	5.7
10°-20°	97.4	15.4
20°-30°	131.8	20.8
30°-40°	135.4	21.4
40°-50°	112.2	17.7
50°-60°	72.0	11.4
60°-70°	34.8	5.5
70°-80°	11.8	1.9
80°-90°	1.5	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°	265.5	41.9
0°-40°	400.9	63.3
0°-60°	585.1	92.4
0°-90°	633.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	633.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	391	391	391	391	391	
5°	386	389	385	382	384	37
15°	367	363	345	333	330	104
25°	333	316	283	258	249	153
35°	286	259	211	174	161	179
45°	233	195	137	94	80	180
55°	176	129	65	29	19	157
65°	116	64	11	3	2	115
75°	56	12	1	0	0	59
85°	7	0	0	0	0	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	390.7	390.7	390.7	390.7	390.7
2.5°	388.3	391.4	388.7	388.3	389.1
5°	386.0	389.1	384.9	382.5	384.5
7.5°	383.3	384.9	377.5	373.6	374.4
10°	379.4	379.0	368.2	361.6	360.5
12.5°	373.6	371.7	357.4	348.1	346.1
15°	367.4	362.8	345.0	333.0	330.3
17.5°	360.1	352.7	331.4	315.9	312.1
20°	351.6	341.5	316.3	297.3	291.5
22.5°	342.3	329.5	300.4	278.0	270.2
25°	332.6	316.3	283.4	257.9	249.3
27.5°	321.7	302.8	266.4	237.3	226.9
30°	310.1	288.4	248.2	216.4	206.0
32.5°	298.1	274.1	230.0	195.5	182.7
35°	286.1	258.6	211.0	174.2	161.1
37.5°	273.3	243.1	192.4	154.1	139.8
40°	260.2	227.3	173.5	133.2	119.2
42.5°	246.6	211.0	154.5	113.4	99.1
45°	233.1	194.7	136.7	94.5	79.8
47.5°	219.1	178.1	118.1	75.9	63.1
50°	204.8	161.8	100.3	59.2	46.8
52.5°	190.5	145.2	82.1	43.0	31.7
55°	175.8	128.9	65.4	28.7	18.6
57.5°	161.1	112.3	49.9	15.9	7.0
60°	146.0	96.4	35.2	5.4	4.6
62.5°	131.3	79.4	22.1	4.3	3.5
65°	115.8	63.9	10.8	3.1	2.3
67.5°	100.7	49.2	4.6	1.9	1.2
70°	84.8	35.6	3.1	1.2	0.8
72.5°	70.1	22.8	1.9	0.8	0.4
75°	55.8	12.0	0.8	0.4	0.4
77.5°	41.8	5.0	0.4	0.4	0.4
80°	28.7	2.3	0.4	0.4	0.0
82.5°	17.0	0.8	0.4	0.4	0.0
85°	6.6	0.0	0.0	0.0	0.0
87.5°	0.4	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	14.60	15.98	14.96	16.30	16.61	0.00	0.86	0.00	1.17	1.49
	3H	16.15	17.38	16.53	17.71	18.07	0.00	0.63	0.00	0.95	1.32
	4H	16.67	17.82	17.07	18.17	18.55	0.00	0.48	0.00	0.83	1.21
	6H	17.01	18.06	17.42	18.43	18.82	0.00	0.31	0.00	0.68	1.08
	8H	17.09	18.09	17.52	18.48	18.88	0.00	0.22	0.00	0.61	1.01
	12H	17.11	18.06	17.54	18.44	18.87	0.00	0.13	0.00	0.52	0.95
4H	2H	14.40	15.55	14.80	15.90	16.28	0.33	1.47	0.73	1.82	2.21
	3H	16.02	16.95	16.43	17.35	17.76	0.28	1.21	0.69	1.62	2.02
	4H	16.54	17.37	16.97	17.79	18.23	0.20	1.04	0.64	1.46	1.90
	6H	16.91	17.63	17.38	18.08	18.54	0.14	0.86	0.60	1.30	1.77
	8H	17.01	17.68	17.48	18.13	18.60	0.09	0.76	0.56	1.21	1.68
	12H	17.05	17.64	17.53	18.12	18.60	0.05	0.64	0.53	1.12	1.60
8H	4H	16.41	17.08	16.88	17.53	18.00	1.22	1.89	1.69	2.34	2.81
	6H	16.77	17.31	17.27	17.81	18.29	1.14	1.69	1.64	2.18	2.66
	8H	16.86	17.35	17.38	17.87	18.36	1.09	1.58	1.61	2.09	2.59
	12H	16.90	17.34	17.42	17.83	18.40	1.05	1.48	1.56	1.98	2.55
12H	4H	16.37	16.96	16.85	17.44	17.92	1.30	1.89	1.78	2.38	2.85
	6H	16.71	17.20	17.23	17.71	18.20	1.20	1.70	1.72	2.21	2.70
	8H	16.82	17.25	17.33	17.75	18.32	1.17	1.61	1.68	2.10	2.67