Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056010

Luminaire Tested: S124R3DR-S350D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method:	LM-79-2019
Report Number:	P1056010
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab:	INNOVATION CENTER
Issue Date:	7/25/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	NEO-RAY
Catalog Number:	S124R3DR-S350D835-X4F0-XX-UDD-FLL-B
Description:	DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS CORE LIGHT ENGINE
Light Source:	3500K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	620.5 lumens
Efficiency:	N/A
Efficacy:	49.2 lumens/watt
Spacing Criteria (0/90/45):	1.18 / 0.81 / 0.97
Luminous Opening:	Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type:	Direct
Input Watts (W):	12.6
Input Voltage (V):	120
Input Current (Ain):	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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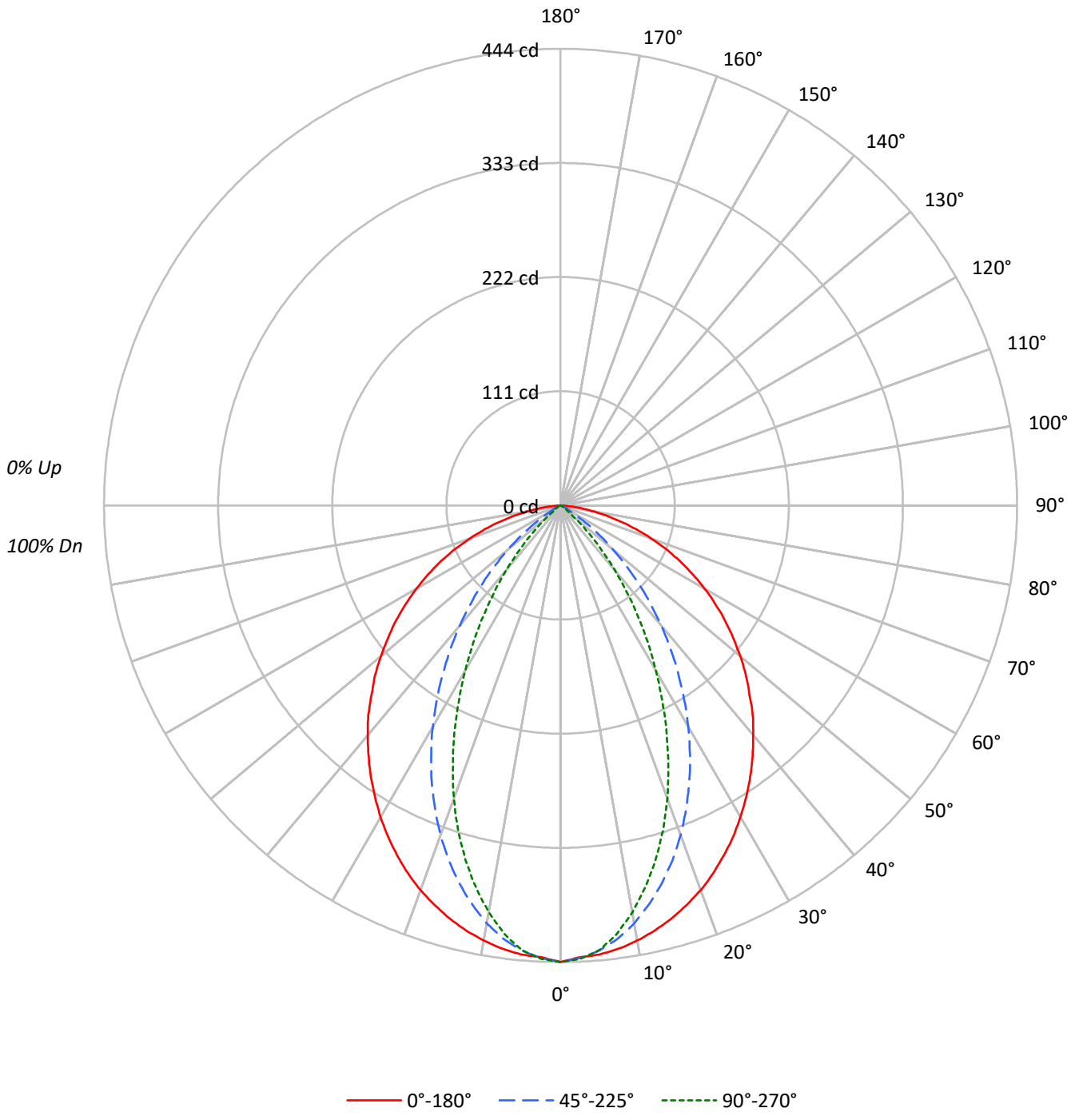
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3926	3926	3926
5°	3890	3855	3852
10°	3857	3704	3606
15°	3809	3482	3267
20°	3748	3210	2855
25°	3664	2891	2382
30°	3572	2537	1893
35°	3472	2151	1410
40°	3366	1753	939
45°	3248	1339	516
50°	3137	916	143
55°	3012	496	94
60°	2863	154	53
65°	2678	100	27
70°	2420	44	10
75°	2080	14	0
80°	1573	0	0
85°	659	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3248 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	6.6
10°-20°	107.5	17.3
20°-30°	138.9	22.4
30°-40°	132.8	21.4
40°-50°	99.3	16.0
50°-60°	59.1	9.5
60°-70°	30.0	4.8
70°-80°	10.4	1.7
80°-90°	1.4	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°	287.4	46.3
0°-40°	420.2	67.7
0°-60°	578.6	93.3
0°-90°	620.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	620.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	438	442	434	432	434	42
15°	416	407	380	363	357	117
25°	376	350	296	257	244	173
35°	322	277	199	148	131	201
45°	260	199	107	57	41	201
55°	195	121	32	7	6	174
65°	128	49	5	2	1	127
75°	61	6	0	0	0	65
85°	6	0	0	0	0	11
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	444.0	444.0	444.0	444.0	444.0
2.5°	439.6	444.8	440.5	440.9	441.4
5°	438.3	441.8	434.4	432.2	434.0
7.5°	434.8	436.1	425.2	419.6	420.0
10°	429.6	428.3	412.6	403.0	401.7
12.5°	423.5	419.2	397.4	383.5	380.4
15°	416.1	407.4	380.4	362.6	356.9
17.5°	407.4	394.8	361.7	338.2	331.2
20°	398.3	380.9	341.2	312.1	303.4
22.5°	387.4	365.2	319.0	284.7	273.8
25°	375.6	349.5	296.4	257.2	244.2
27.5°	363.4	332.5	272.5	229.4	214.1
30°	349.9	314.7	248.5	201.1	185.4
32.5°	336.0	296.4	223.7	175.0	157.6
35°	321.7	277.3	199.3	148.4	130.6
37.5°	306.9	258.1	175.8	123.2	104.9
40°	291.6	238.5	151.9	99.2	81.4
42.5°	276.8	218.9	129.3	76.6	60.1
45°	259.8	199.3	107.1	57.0	41.3
47.5°	244.6	180.2	85.7	38.7	24.4
50°	228.1	159.7	66.6	22.6	10.4
52.5°	211.5	140.6	48.7	10.0	7.8
55°	195.4	121.4	32.2	7.4	6.1
57.5°	178.5	102.3	17.4	5.7	4.4
60°	161.9	83.6	8.7	4.4	3.0
62.5°	144.9	65.7	7.0	2.6	1.7
65°	128.0	49.2	4.8	1.7	1.3
67.5°	111.0	33.5	3.0	0.9	0.4
70°	93.6	20.5	1.7	0.4	0.4
72.5°	77.0	10.4	0.9	0.4	0.4
75°	60.9	6.5	0.4	0.4	0.0
77.5°	45.3	3.5	0.4	0.4	0.0
80°	30.9	1.3	0.0	0.0	0.0
82.5°	17.8	0.4	0.0	0.0	0.0
85°	6.5	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)