

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: P1059094

Luminaire Tested: S123RDR-S1165D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059094  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D835-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

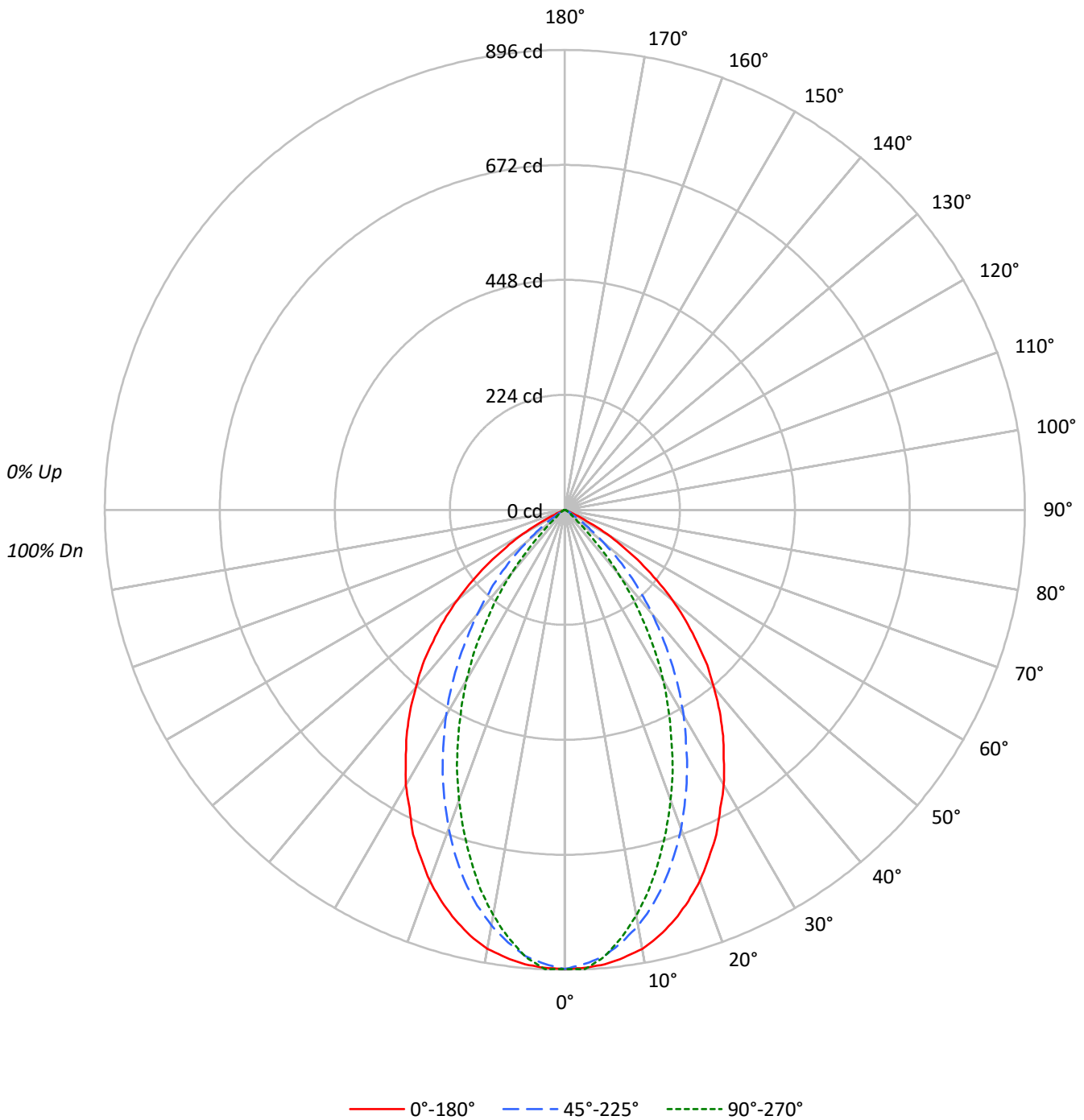
Lumens per Lamp: N/A  
Luminaire Lumens: 1020.6 lumens  
Efficiency: N/A  
Efficacy: 24.4 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 41.8  
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	
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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10502	10502	10502
5°	10475	10288	10306
10°	10356	9806	9565
15°	10050	9122	8597
20°	9611	8261	7523
25°	9050	7297	6363
30°	8397	6268	5194
35°	7701	5182	3860
40°	6910	4062	2473
45°	6028	2966	1028
50°	5000	1763	395
55°	3685	737	295
60°	2233	270	169
65°	600	161	81
70°	0	48	48
75°	0	0	64
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6028 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.3	8.1
10°-20°	212.5	20.8
20°-30°	264.8	25.9
30°-40°	236.8	23.2
40°-50°	149.4	14.6
50°-60°	62.5	6.1
60°-70°	11.8	1.2
70°-80°	0.4	0.0
80°-90°	0.0	0.0
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°	559.7	54.8
0°-40°	796.5	78.0
0°-60°	1008.5	98.8
0°-90°	1020.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1020.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	889	887	873	876	874	84
15°	827	807	750	719	707	232
25°	698	642	563	514	491	320
35°	537	460	362	297	269	335
45°	363	282	179	95	62	280
55°	180	124	36	14	14	161
65°	22	16	6	3	3	30
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	894.4	894.4	894.4	894.4	894.4
2.5°	893.0	894.4	885.8	894.4	895.9
5°	888.7	887.2	872.8	875.7	874.3
7.5°	880.0	875.7	849.8	844.0	841.1
10°	868.5	857.0	822.4	808.0	802.2
12.5°	849.8	833.9	789.3	766.2	757.6
15°	826.7	806.6	750.4	718.7	707.2
17.5°	799.4	770.6	707.2	672.6	655.3
20°	769.1	728.8	661.1	619.3	602.0
22.5°	733.1	688.5	612.1	567.5	548.8
25°	698.5	642.4	563.2	514.2	491.1
27.5°	655.3	596.3	511.3	460.9	436.4
30°	619.3	551.6	462.3	406.2	383.1
32.5°	576.1	505.5	411.9	350.0	328.4
35°	537.2	459.5	361.5	296.7	269.3
37.5°	495.5	414.8	311.1	243.4	217.5
40°	450.8	370.2	265.0	190.1	161.3
42.5°	410.5	325.5	218.9	141.1	112.3
45°	363.0	282.3	178.6	95.1	61.9
47.5°	319.7	242.0	135.4	53.3	33.1
50°	273.7	200.2	96.5	27.4	21.6
52.5°	226.1	159.9	63.4	18.7	17.3
55°	180.0	123.9	36.0	14.4	14.4
57.5°	135.4	89.3	18.7	11.5	10.1
60°	95.1	59.1	11.5	8.6	7.2
62.5°	54.7	34.6	8.6	5.8	5.8
65°	21.6	15.8	5.8	2.9	2.9
67.5°	1.4	4.3	2.9	1.4	1.4
70°	0.0	0.0	1.4	1.4	1.4
72.5°	0.0	0.0	1.4	1.4	1.4
75°	0.0	0.0	0.0	0.0	1.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	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)