

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: P1059101

Luminaire Tested: S123RDR-S1165D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

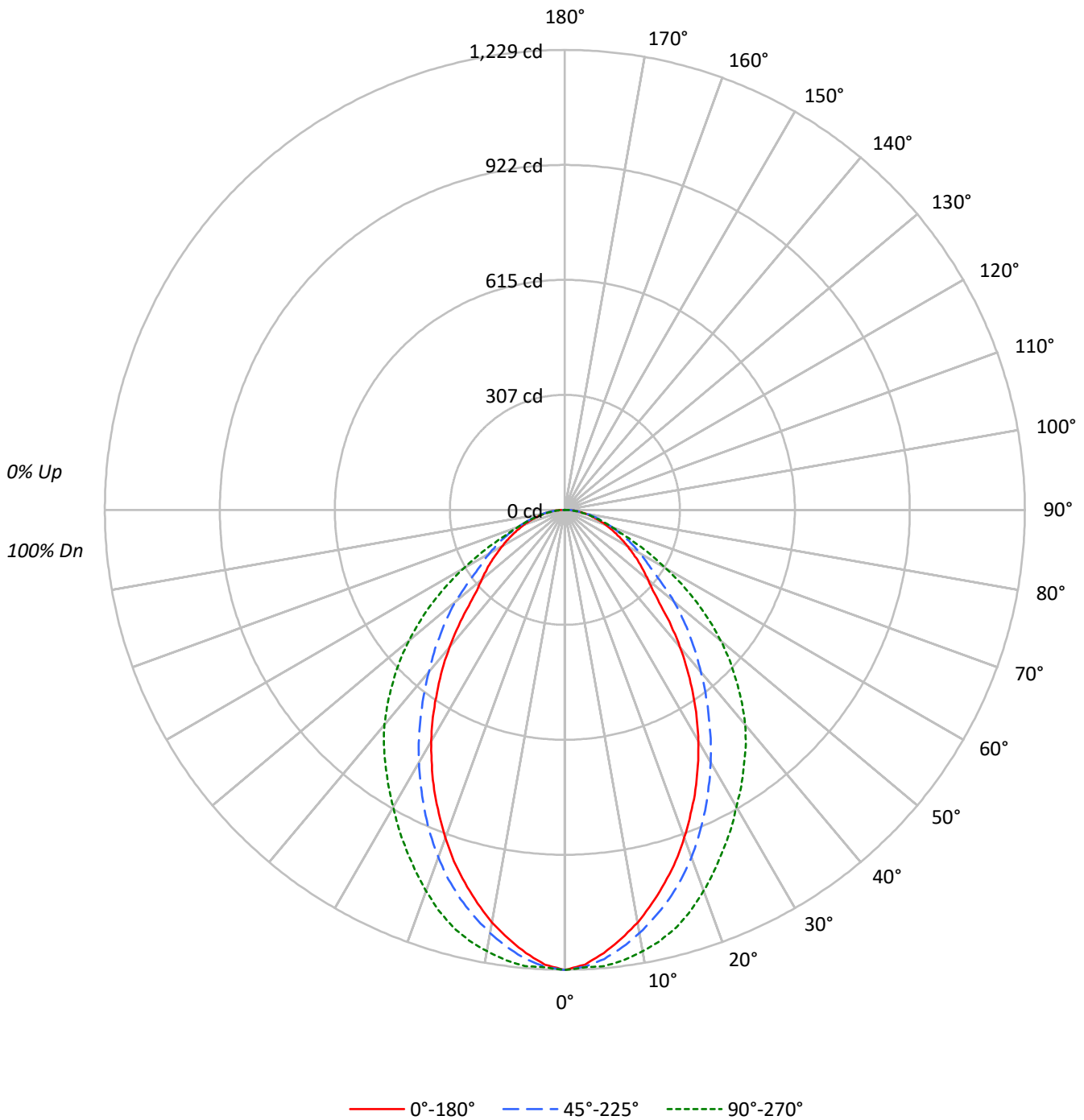
Lumens per Lamp: N/A
Luminaire Lumens: 2220.7 lumens
Efficiency: N/A
Efficacy: 53.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14436	14436	14436
5°	14015	14203	14423
10°	13353	13697	14281
15°	12544	13088	14034
20°	11653	12355	13543
25°	10699	11485	12978
30°	9673	10572	12428
35°	8532	9607	11962
40°	7335	8661	11489
45°	6031	7802	10771
50°	5292	6951	9927
55°	4897	5931	8793
60°	4502	5448	7278
65°	4204	5007	5726
70°	3959	4553	4553
75°	3729	4183	3924
80°	3510	3800	3313
85°	3301	3692	2519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10771 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.7	5.1
10°-20°	304.7	13.7
20°-30°	413.2	18.6
30°-40°	432.0	19.5
40°-50°	374.7	16.9
50°-60°	278.7	12.6
60°-70°	178.8	8.1
70°-80°	95.9	4.3
80°-90°	29.0	1.3
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°	831.6	37.4
0°-40°	1263.6	56.9
0°-60°	1917.0	86.3
0°-90°	2220.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2220.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1189	1209	1205	1214	1224	111
15°	1032	1056	1077	1120	1154	289
25°	826	852	886	946	1002	379
35°	595	624	670	755	834	372
45°	363	391	470	571	649	286
55°	239	245	290	372	430	214
65°	151	164	180	192	206	151
75°	82	95	92	88	86	87
85°	24	30	27	23	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1229.4	1229.4	1229.4	1229.4	1229.4
2.5°	1216.4	1233.7	1222.2	1222.2	1223.6
5°	1189.0	1209.2	1204.9	1213.5	1223.6
7.5°	1155.9	1177.5	1178.9	1199.1	1213.5
10°	1119.9	1141.5	1148.7	1177.5	1197.7
12.5°	1076.6	1101.1	1114.1	1150.1	1178.9
15°	1031.9	1056.4	1076.6	1119.9	1154.4
17.5°	984.4	1008.9	1034.8	1083.8	1121.3
20°	932.5	958.4	988.7	1037.7	1083.8
22.5°	879.2	906.5	938.3	991.6	1043.5
25°	825.8	851.8	886.4	945.5	1001.7
27.5°	769.6	797.0	833.0	897.9	961.3
30°	713.4	740.8	779.7	848.9	916.6
32.5°	655.8	683.2	725.0	802.8	876.3
35°	595.2	624.1	670.2	755.2	834.5
37.5°	537.6	565.0	616.9	710.5	794.1
40°	478.5	507.3	565.0	665.9	749.5
42.5°	420.8	449.7	517.4	618.3	700.4
45°	363.2	390.6	469.8	570.7	648.6
47.5°	318.5	338.7	425.2	520.3	598.1
50°	289.7	296.9	380.5	471.3	543.4
52.5°	263.7	269.5	331.5	422.3	487.1
55°	239.2	245.0	289.7	371.8	429.5
57.5°	214.7	222.0	258.0	320.0	371.8
60°	191.7	200.3	232.0	273.8	309.9
62.5°	171.5	181.6	206.1	232.0	256.5
65°	151.3	164.3	180.2	191.7	206.1
67.5°	132.6	147.0	155.7	158.5	160.0
70°	115.3	129.7	132.6	132.6	132.6
72.5°	98.0	113.9	111.0	109.5	108.1
75°	82.2	95.1	92.2	87.9	86.5
77.5°	66.3	77.8	73.5	70.6	66.3
80°	51.9	60.5	56.2	53.3	49.0
82.5°	38.9	44.7	40.4	37.5	33.1
85°	24.5	30.3	27.4	23.1	18.7
87.5°	13.0	17.3	14.4	13.0	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)