

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242707

Luminaire Tested: **S124RDR-S350D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242707  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S350D835-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1317.6 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

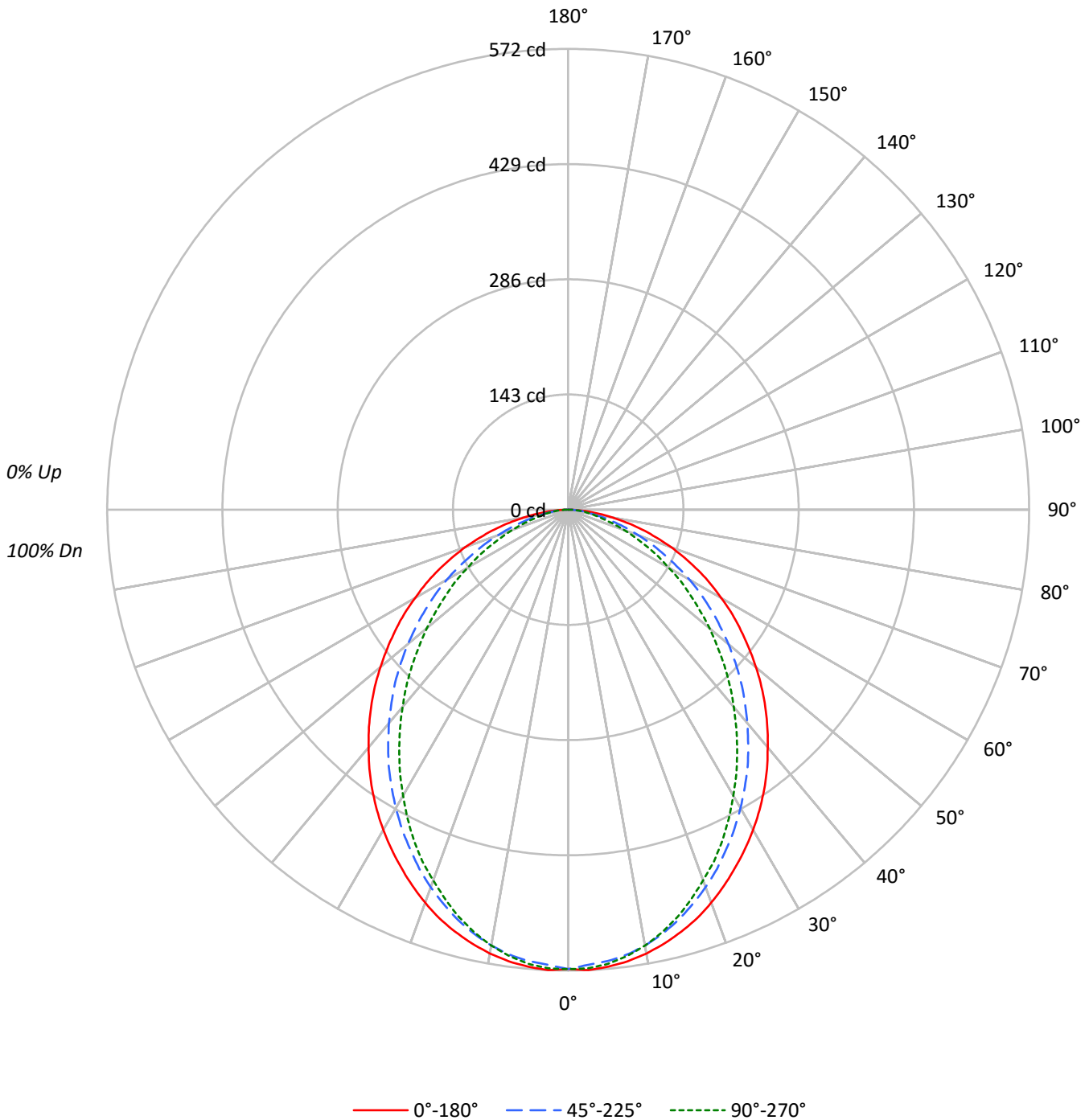
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54					54			
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47					47			
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41					41			
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37					37			
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33					33			
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30					30			
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27					27			

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

	0°	45°	90°
0°	5068	5068	5068
5°	5081	5018	5049
10°	5048	4958	4958
15°	4991	4853	4817
20°	4910	4716	4630
25°	4809	4557	4441
30°	4710	4388	4204
35°	4601	4212	3966
40°	4469	4013	3709
45°	4347	3815	3447
50°	4208	3587	3170
55°	4060	3349	2869
60°	3897	3090	2562
65°	3746	2764	2259
70°	3529	2407	1918
75°	3252	1995	1559
80°	2841	1520	1428
85°	2407	1377	1295



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.6	4.1
10°-20°	149.5	11.3
20°-30°	215.8	16.4
30°-40°	244.6	18.6
40°-50°	236.2	17.9
50°-60°	196.4	14.9
60°-70°	135.5	10.3
70°-80°	68.5	5.2
80°-90°	17.4	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°	419.0	31.8
0°-40°	663.6	50.4
0°-60°	1096.2	83.2
0°-90°	1317.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1317.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	569	568	562	567	566	54
15°	542	538	527	527	524	153
25°	490	482	465	457	453	226
35°	424	410	388	373	366	265
45°	346	330	304	282	274	267
55°	262	244	216	193	185	234
65°	178	159	131	113	107	176
75°	95	79	58	48	45	100
85°	24	15	14	13	13	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	570.2	570.2	570.2	570.2	570.2
2.5°	572.0	570.2	565.4	570.2	569.8
5°	569.4	567.6	562.4	566.7	565.9
7.5°	565.4	563.7	557.1	560.2	558.9
10°	559.3	557.1	549.3	551.0	549.3
12.5°	551.5	548.8	539.2	540.1	537.5
15°	542.3	538.4	527.4	526.6	523.5
17.5°	531.8	526.1	513.5	511.3	506.9
20°	519.1	513.5	498.6	495.1	489.5
22.5°	505.2	498.6	482.5	476.8	472.4
25°	490.3	482.5	464.6	457.1	452.8
27.5°	475.0	465.4	446.7	437.9	431.8
30°	458.9	448.0	427.5	416.5	409.6
32.5°	441.9	429.2	407.8	394.7	388.2
35°	424.0	410.0	388.2	373.3	365.5
37.5°	405.2	390.8	366.8	350.6	342.7
40°	385.1	370.7	345.8	327.5	319.6
42.5°	365.9	350.6	324.4	305.6	297.3
45°	345.8	329.7	303.5	282.1	274.2
47.5°	325.3	308.7	281.6	259.4	250.6
50°	304.3	287.3	259.4	237.5	229.2
52.5°	282.9	266.3	237.5	215.3	206.5
55°	262.0	244.5	216.1	193.4	185.1
57.5°	241.5	223.1	195.2	172.0	165.9
60°	219.2	201.7	173.8	151.1	144.1
62.5°	199.1	180.8	151.9	131.4	126.2
65°	178.1	159.4	131.4	112.6	107.4
67.5°	156.3	138.4	112.2	95.6	89.5
70°	135.8	117.5	92.6	78.2	73.8
72.5°	114.0	97.8	74.7	62.9	58.9
75°	94.7	78.6	58.1	48.0	45.4
77.5°	74.7	60.7	43.2	36.2	35.4
80°	55.5	42.8	29.7	28.4	27.9
82.5°	38.9	27.5	21.4	20.5	20.1
85°	23.6	14.8	13.5	12.7	12.7
87.5°	10.0	6.5	6.1	5.7	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)