

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: P242604

Luminaire Tested: **S124DR-S350D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242604  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-S350D835-X4F0-XX-UDD-F-W  
Description: DEFINE 4 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: 1398.6 lumens  
Efficiency: N/A  
Efficacy: 120.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

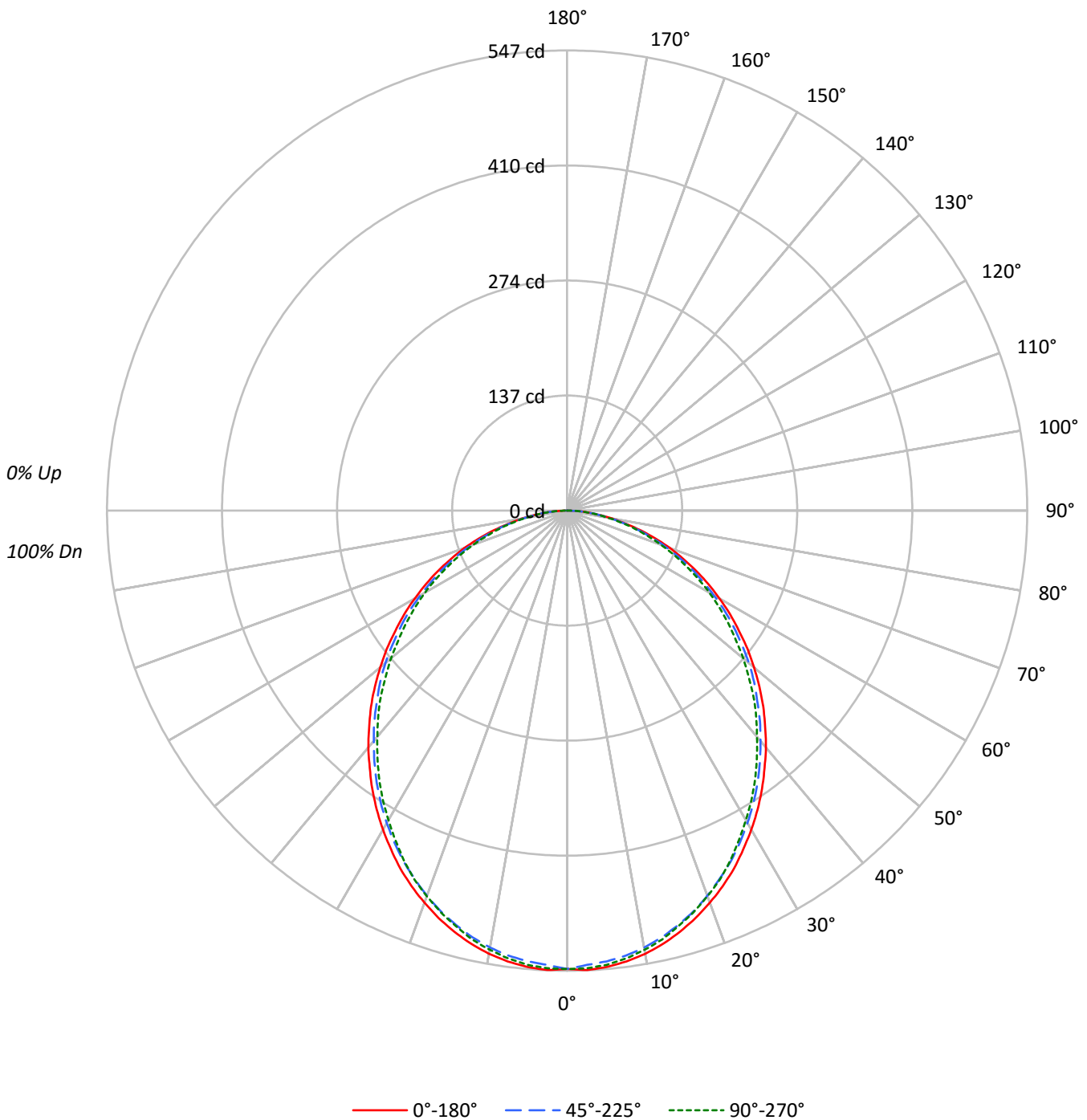
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	4844	4844	4844
5°	4858	4800	4835
10°	4828	4760	4785
15°	4770	4693	4705
20°	4692	4610	4613
25°	4604	4514	4501
30°	4495	4401	4360
35°	4383	4283	4227
40°	4266	4149	4073
45°	4145	4018	3941
50°	4009	3901	3779
55°	3863	3749	3626
60°	3717	3579	3470
65°	3555	3416	3279
70°	3371	3199	3075
75°	3088	2940	2864
80°	2749	2636	2570
85°	2407	2315	2274



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.4	3.7
10°-20°	144.7	10.3
20°-30°	213.0	15.2
30°-40°	247.5	17.7
40°-50°	247.5	17.7
50°-60°	216.5	15.5
60°-70°	160.7	11.5
70°-80°	91.2	6.5
80°-90°	26.1	1.9
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°	409.0	29.2
0°-40°	656.6	46.9
0°-60°	1120.6	80.1
0°-90°	1398.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1398.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	545	545	545	545	545	
5°	544	543	538	543	542	52
15°	518	516	510	513	511	146
25°	469	466	460	461	459	216
35°	404	401	395	392	390	253
45°	330	327	320	315	314	254
55°	249	248	242	237	234	223
65°	169	167	162	158	156	167
75°	90	88	86	84	83	95
85°	24	24	23	23	22	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	544.9	544.9	544.9	544.9	544.9
2.5°	546.7	545.3	540.5	544.9	544.5
5°	544.5	542.7	537.9	542.7	541.9
7.5°	540.5	538.8	533.6	537.5	537.0
10°	534.9	533.1	527.4	530.9	530.1
12.5°	527.4	525.7	519.6	523.5	522.2
15°	518.3	516.5	510.0	512.6	511.3
17.5°	507.8	505.6	499.5	501.2	500.4
20°	496.0	493.8	487.3	488.6	487.7
22.5°	483.3	480.3	473.7	476.4	474.6
25°	469.4	466.3	460.2	460.6	458.9
27.5°	453.7	450.6	444.9	444.0	441.9
30°	437.9	434.4	428.8	427.0	424.8
32.5°	421.3	418.3	412.2	410.0	407.8
35°	403.9	400.8	394.7	391.7	389.5
37.5°	385.5	382.9	376.4	373.3	370.3
40°	367.6	364.1	357.6	353.2	351.0
42.5°	348.4	346.7	339.3	334.0	332.7
45°	329.7	326.6	319.6	314.8	313.5
47.5°	310.0	307.8	301.3	296.0	292.5
50°	289.9	288.2	282.1	275.9	273.3
52.5°	270.3	268.1	261.5	256.3	252.8
55°	249.3	248.0	241.9	236.7	234.0
57.5°	229.7	228.4	222.2	217.0	214.4
60°	209.1	207.0	201.3	197.4	195.2
62.5°	189.1	187.3	181.2	177.7	175.5
65°	169.0	166.8	162.4	158.1	155.9
67.5°	148.5	146.7	142.3	138.0	137.5
70°	129.7	126.6	123.1	119.6	118.3
72.5°	109.6	106.5	103.9	101.3	100.0
75°	89.9	87.8	85.6	83.8	83.4
77.5°	70.7	69.9	67.7	67.2	65.9
80°	53.7	52.4	51.5	50.6	50.2
82.5°	37.1	36.7	36.7	36.2	35.8
85°	23.6	23.6	22.7	22.7	22.3
87.5°	11.4	10.9	10.5	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)