

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: P242614

Luminaire Tested: **S124DR-S575D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242614  
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-S575D930-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1875.2 lumens  
Efficiency: N/A  
Efficacy: 99.7 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

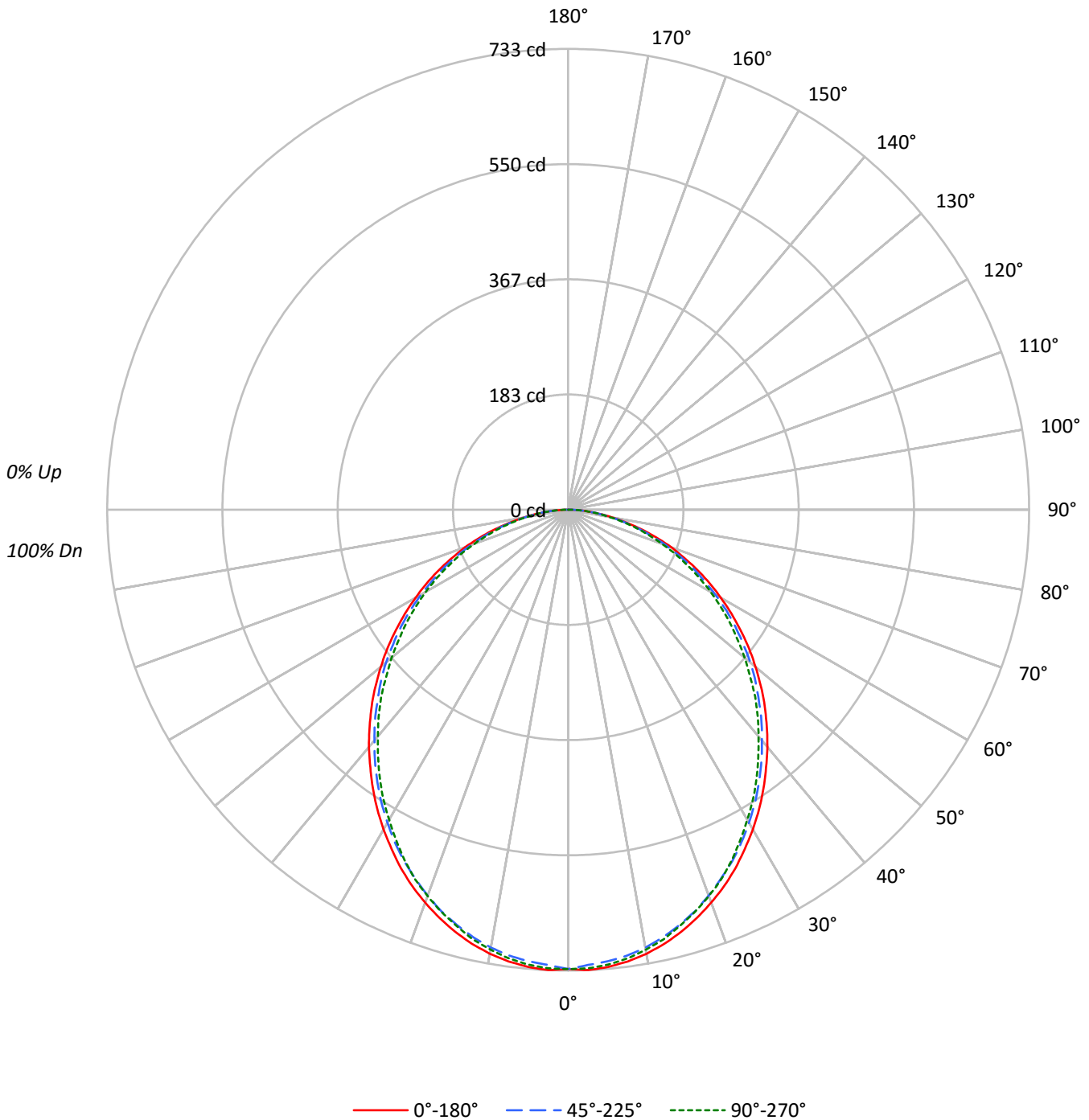
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6494	6494	6494
5°	6514	6435	6482
10°	6473	6383	6415
15°	6395	6293	6308
20°	6290	6180	6185
25°	6172	6051	6035
30°	6027	5901	5846
35°	5876	5743	5667
40°	5719	5563	5462
45°	5556	5387	5284
50°	5375	5230	5068
55°	5181	5026	4863
60°	4985	4798	4652
65°	4766	4581	4396
70°	4520	4291	4122
75°	4142	3939	3840
80°	3686	3537	3445
85°	3223	3100	3049



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.9	3.7
10°-20°	194.0	10.3
20°-30°	285.5	15.2
30°-40°	331.9	17.7
40°-50°	331.9	17.7
50°-60°	290.3	15.5
60°-70°	215.5	11.5
70°-80°	122.3	6.5
80°-90°	35.0	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°	548.4	29.2
0°-40°	880.3	46.9
0°-60°	1502.4	80.1
0°-90°	1875.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1875.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	730	728	721	728	726	69
15°	695	692	684	687	686	196
25°	629	625	617	618	615	290
35°	542	537	529	525	522	339
45°	442	438	428	422	420	341
55°	334	332	324	317	314	299
65°	227	224	218	212	209	224
75°	121	118	115	112	112	128
85°	32	32	30	30	30	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	730.6	730.6	730.6	730.6	730.6
2.5°	732.9	731.2	724.7	730.6	730.0
5°	730.0	727.7	721.2	727.7	726.5
7.5°	724.7	722.4	715.4	720.6	720.1
10°	717.1	714.8	707.2	711.9	710.7
12.5°	707.2	704.8	696.6	701.9	700.1
15°	694.9	692.5	683.8	687.3	685.5
17.5°	680.8	677.9	669.7	672.0	670.9
20°	665.0	662.1	653.3	655.1	653.9
22.5°	648.0	643.9	635.2	638.7	636.3
25°	629.3	625.2	617.0	617.6	615.3
27.5°	608.2	604.1	596.5	595.4	592.4
30°	587.2	582.5	574.9	572.5	569.6
32.5°	564.9	560.8	552.6	549.7	546.8
35°	541.5	537.4	529.2	525.1	522.2
37.5°	516.9	513.4	504.6	500.5	496.4
40°	492.9	488.2	479.4	473.6	470.7
42.5°	467.2	464.8	454.9	447.8	446.1
45°	442.0	437.9	428.5	422.1	420.3
47.5°	415.6	412.7	403.9	396.9	392.2
50°	388.7	386.4	378.2	370.0	366.5
52.5°	362.4	359.4	350.7	343.6	339.0
55°	334.3	332.5	324.3	317.3	313.8
57.5°	307.9	306.2	298.0	290.9	287.4
60°	280.4	277.5	269.9	264.6	261.7
62.5°	253.5	251.1	242.9	238.3	235.3
65°	226.6	223.6	217.8	211.9	209.0
67.5°	199.0	196.7	190.8	185.0	184.4
70°	173.9	169.8	165.1	160.4	158.6
72.5°	146.9	142.8	139.3	135.8	134.1
75°	120.6	117.7	114.7	112.4	111.8
77.5°	94.8	93.7	90.7	90.2	88.4
80°	72.0	70.2	69.1	67.9	67.3
82.5°	49.8	49.2	49.2	48.6	48.0
85°	31.6	31.6	30.4	30.4	29.9
87.5°	15.2	14.6	14.0	14.0	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)