

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: P243455

Luminaire Tested: **S124DR-H575D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243455  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-H575D927-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

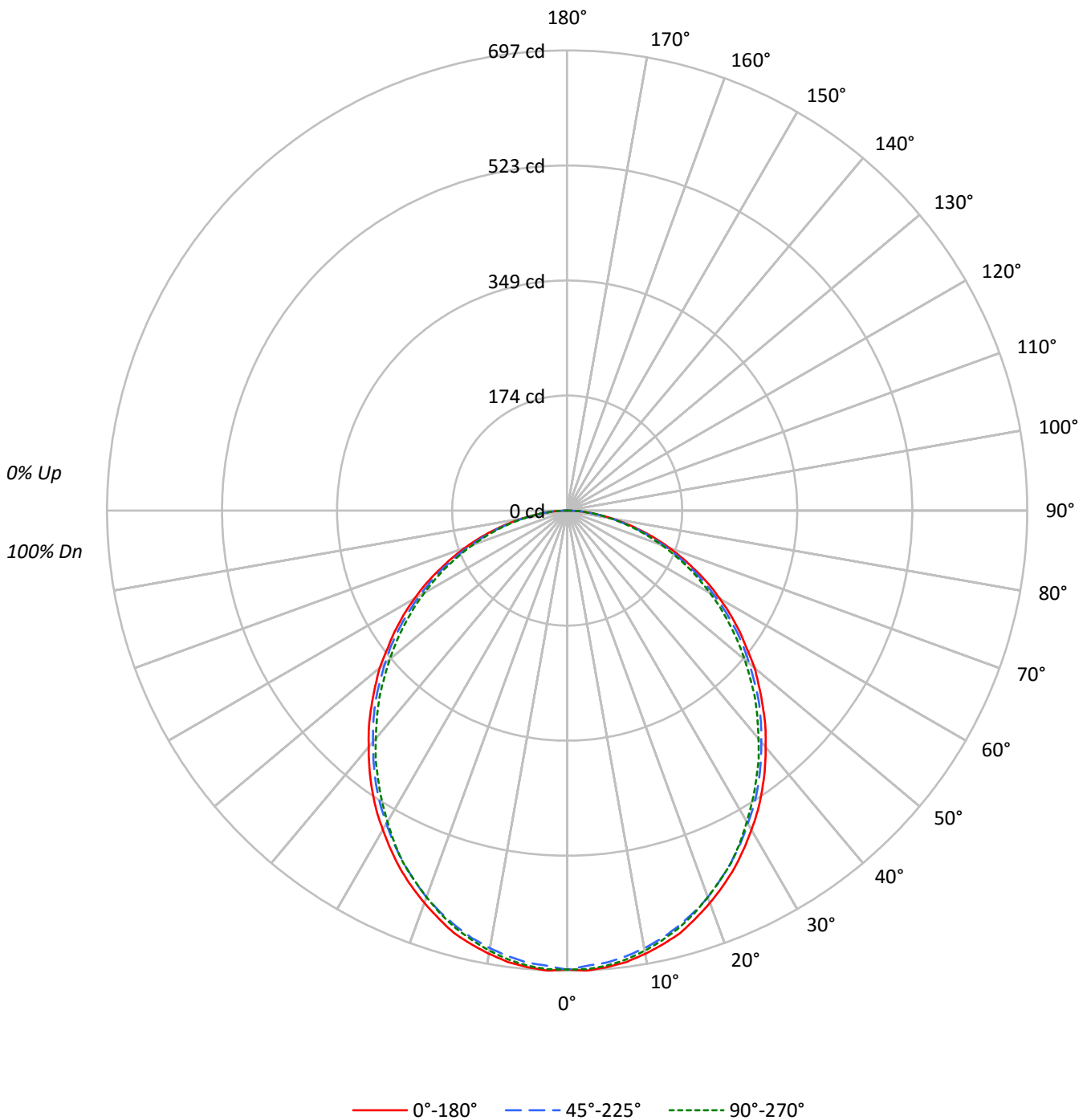
Lumens per Lamp: N/A  
Luminaire Lumens: 1789.6 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): 120  
Input Current (A<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	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	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	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	6180	6180	6180
5°	6192	6133	6173
10°	6152	6075	6112
15°	6096	5996	6023
20°	5982	5896	5891
25°	5870	5764	5770
30°	5730	5620	5586
35°	5592	5481	5414
40°	5428	5310	5231
45°	5268	5163	5062
50°	5124	4976	4850
55°	4936	4804	4655
60°	4747	4585	4444
65°	4520	4366	4223
70°	4278	4086	3956
75°	3943	3788	3671
80°	3476	3414	3327
85°	3060	3060	2998



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.5	3.7
10°-20°	184.8	10.3
20°-30°	272.1	15.2
30°-40°	316.6	17.7
40°-50°	316.8	17.7
50°-60°	277.0	15.5
60°-70°	205.7	11.5
70°-80°	117.2	6.6
80°-90°	33.7	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°	522.5	29.2
0°-40°	839.1	46.9
0°-60°	1432.9	80.1
0°-90°	1789.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1789.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	694	693	687	692	692	66
15°	662	659	652	656	654	186
25°	598	596	588	589	588	275
35°	515	511	505	501	499	322
45°	419	417	411	404	403	324
55°	318	316	310	303	300	285
65°	215	213	208	203	201	213
75°	115	113	110	108	107	122
85°	30	29	30	29	29	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	695.2	695.2	695.2	695.2	695.2
2.5°	697.4	695.7	690.1	695.7	695.2
5°	694.0	692.9	687.3	692.4	691.8
7.5°	689.5	687.3	681.0	686.1	685.6
10°	681.6	679.9	673.1	678.2	677.1
12.5°	672.6	670.9	663.5	667.5	666.3
15°	662.4	659.0	651.6	655.6	654.5
17.5°	647.7	645.4	638.0	641.4	639.7
20°	632.4	629.6	623.3	623.9	622.8
22.5°	616.0	613.2	605.8	608.1	605.8
25°	598.5	595.6	587.7	589.4	588.3
27.5°	578.7	575.8	568.5	569.0	566.8
30°	558.3	554.9	547.5	547.0	544.2
32.5°	537.9	534.5	527.2	524.9	522.1
35°	515.3	510.8	505.1	500.6	498.9
37.5°	492.1	489.9	481.4	478.5	476.3
40°	467.8	465.5	457.6	453.6	450.8
42.5°	444.6	441.8	434.4	428.8	426.5
45°	419.1	417.4	410.7	404.4	402.7
47.5°	394.3	393.7	385.2	379.0	376.2
50°	370.5	367.1	359.8	354.1	350.7
52.5°	342.8	342.2	336.0	328.6	325.8
55°	318.5	316.2	310.0	303.2	300.4
57.5°	293.0	291.9	284.0	278.3	275.5
60°	267.0	264.7	257.9	252.8	250.0
62.5°	242.1	239.3	233.0	228.0	225.1
65°	214.9	213.2	207.6	203.1	200.8
67.5°	189.5	187.2	181.6	177.6	175.4
70°	164.6	161.2	157.2	153.9	152.2
72.5°	139.7	136.9	133.5	131.2	129.0
75°	114.8	112.6	110.3	108.0	106.9
77.5°	91.1	88.8	87.7	87.1	86.0
80°	67.9	66.7	66.7	66.2	65.0
82.5°	48.1	46.9	46.9	46.9	46.4
85°	30.0	29.4	30.0	28.8	29.4
87.5°	14.1	14.1	14.7	14.1	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)