

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: P242703

Luminaire Tested: **S124RDR-S575D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242703  
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-S575D830-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2042.2 lumens  
Efficiency: N/A  
Efficacy: 108.6 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

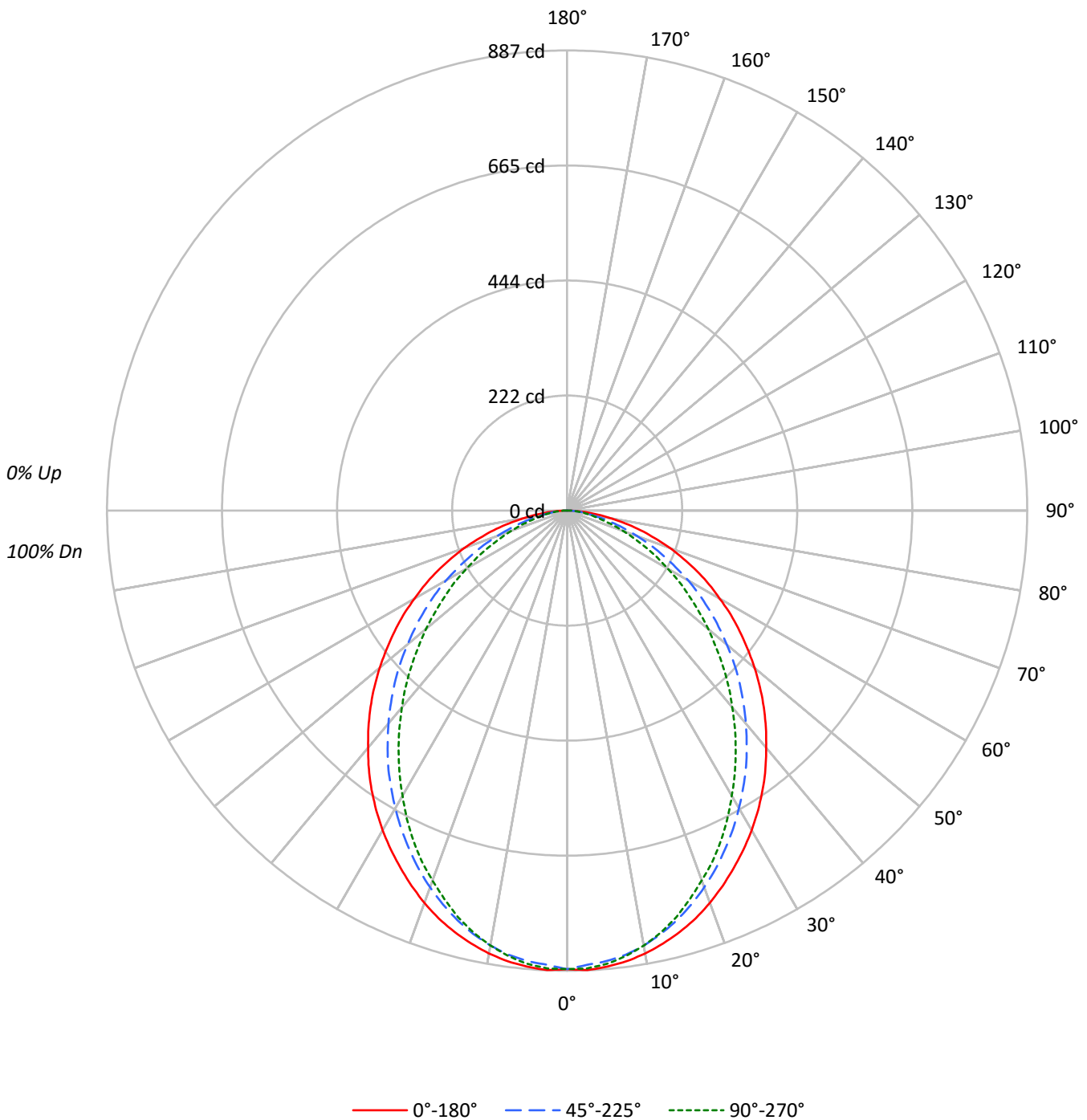
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242703

CATALOG NUMBER: S124RDR-S575D830-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242703

CATALOG NUMBER: S124RDR-S575D830-X4F0-XX-UDD-F-W

**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				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°	7857	7857	7857
5°	7874	7778	7826
10°	7825	7685	7685
15°	7735	7523	7467
20°	7612	7311	7177
25°	7454	7063	6883
30°	7301	6801	6516
35°	7130	6528	6147
40°	6926	6220	5748
45°	6738	5913	5343
50°	6523	5559	4913
55°	6293	5192	4448
60°	6039	4789	3970
65°	5807	4284	3502
70°	5471	3729	2973
75°	5045	3091	2418
80°	4397	2355	2216
85°	3723	2142	1999



TEST NUMBER: P242703

CATALOG NUMBER: S124RDR-S575D830-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.1	4.1
10°-20°	231.7	11.3
20°-30°	334.6	16.4
30°-40°	379.2	18.6
40°-50°	366.1	17.9
50°-60°	304.4	14.9
60°-70°	210.1	10.3
70°-80°	106.2	5.2
80°-90°	27.0	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°	649.4	31.8
0°-40°	1028.6	50.4
0°-60°	1699.1	83.2
0°-90°	2042.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	884	884	884	884	884	
5°	882	880	872	878	877	84
15°	840	834	818	816	811	237
25°	760	748	720	709	702	350
35°	657	636	602	579	566	411
45°	536	511	470	437	425	413
55°	406	379	335	300	287	363
65°	276	247	204	175	166	273
75°	147	122	90	74	70	155
85°	36	23	21	20	20	42
90°	0	0	0	0	0	



TEST NUMBER: P242703

CATALOG NUMBER: S124RDR-S575D830-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	883.9	883.9	883.9	883.9	883.9
2.5°	886.6	883.9	876.4	883.9	883.2
5°	882.5	879.8	871.7	878.4	877.1
7.5°	876.4	873.7	863.6	868.3	866.3
10°	866.9	863.6	851.4	854.1	851.4
12.5°	854.8	850.7	835.8	837.2	833.1
15°	840.5	834.5	817.5	816.2	811.4
17.5°	824.3	815.5	795.9	792.5	785.7
20°	804.7	795.9	772.9	767.5	758.7
22.5°	783.0	772.9	747.8	739.0	732.3
25°	760.0	747.8	720.1	708.6	701.8
27.5°	736.3	721.4	692.3	678.8	669.3
30°	711.3	694.4	662.6	645.6	634.8
32.5°	684.9	665.3	632.1	611.8	601.6
35°	657.1	635.5	601.6	578.6	566.5
37.5°	628.0	605.7	568.5	543.4	531.3
40°	596.9	574.6	536.0	507.6	495.4
42.5°	567.1	543.4	502.8	473.7	460.9
45°	536.0	511.0	470.4	437.2	425.0
47.5°	504.2	478.5	436.5	402.0	388.5
50°	471.7	445.3	402.0	368.2	355.3
52.5°	438.5	412.8	368.2	333.6	320.1
55°	406.1	379.0	335.0	299.8	287.0
57.5°	374.3	345.8	302.5	266.6	257.2
60°	339.7	312.7	269.4	234.2	223.3
62.5°	308.6	280.2	235.5	203.7	195.6
65°	276.1	247.0	203.7	174.6	166.5
67.5°	242.3	214.5	173.9	148.2	138.7
70°	210.5	182.1	143.5	121.1	114.4
72.5°	176.6	151.6	115.7	97.5	91.4
75°	146.9	121.8	90.0	74.4	70.4
77.5°	115.7	94.1	67.0	56.2	54.8
80°	85.9	66.3	46.0	44.0	43.3
82.5°	60.2	42.6	33.2	31.8	31.1
85°	36.5	23.0	21.0	19.6	19.6
87.5°	15.6	10.2	9.5	8.8	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)