

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: P334065

Luminaire Tested: **S123RDS-S340D840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334065  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123RDS-S340D840-4F0-1E-UDD-F  
Description: DEFINE 3 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 340 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

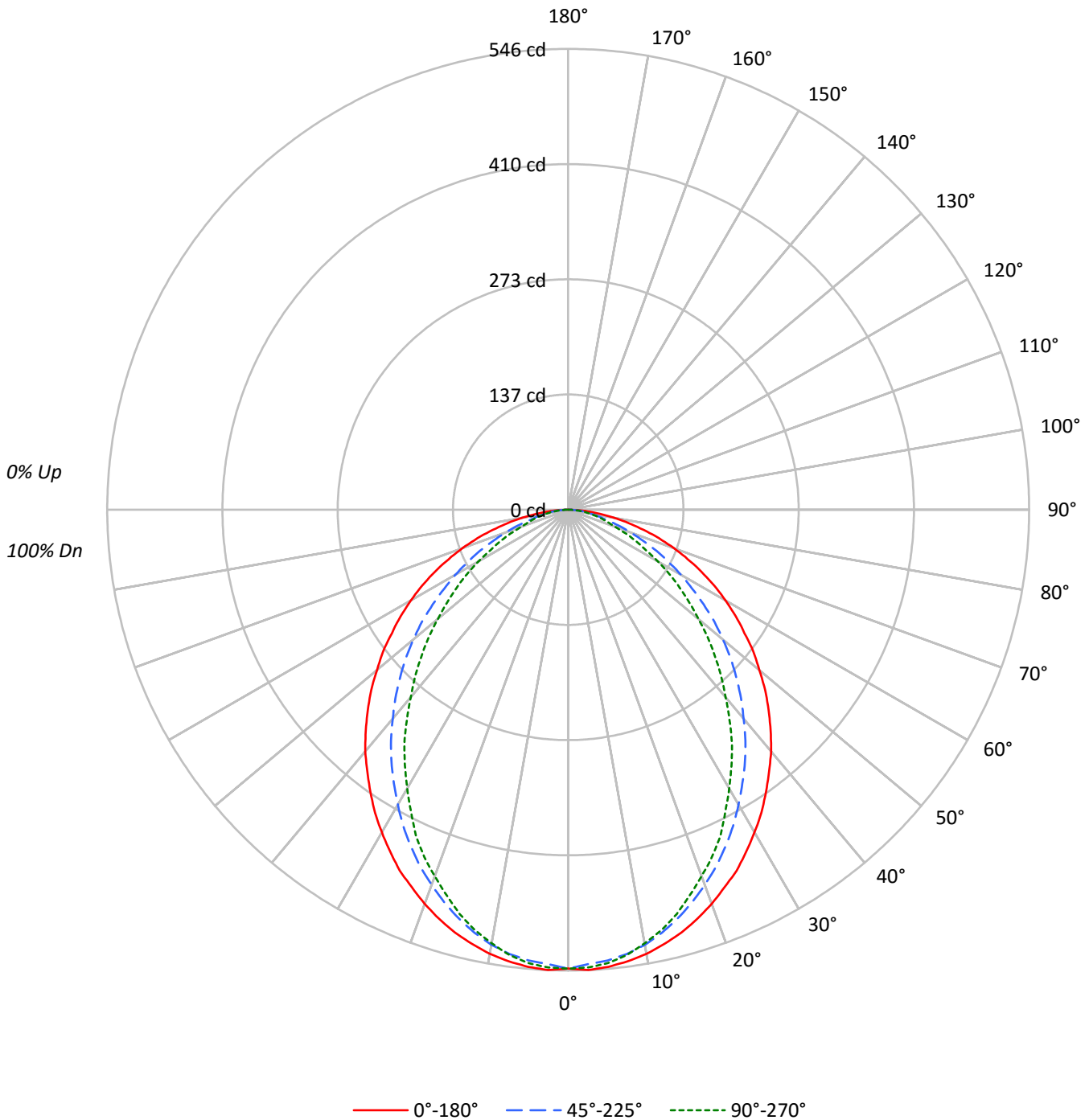
Lumens per Lamp: N/A  
Luminaire Lumens: 1228.2 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (Ain): 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	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28					28			

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

	0°	45°	90°
0°	5852	5852	5852
5°	5875	5794	5827
10°	5841	5721	5701
15°	5778	5586	5527
20°	5692	5419	5293
25°	5603	5232	5064
30°	5486	5015	4740
35°	5365	4798	4444
40°	5254	4541	4076
45°	5107	4290	3745
50°	4947	4002	3374
55°	4784	3674	3029
60°	4633	3322	2648
65°	4437	2942	2269
70°	4192	2471	1832
75°	3834	1942	1722
80°	3415	1723	1587
85°	2890	1519	1420



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.1	4.2
10°-20°	142.2	11.6
20°-30°	204.7	16.7
30°-40°	230.5	18.8
40°-50°	220.5	18.0
50°-60°	180.5	14.7
60°-70°	121.7	9.9
70°-80°	61.0	5.0
80°-90°	16.0	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°	398.0	32.4
0°-40°	628.5	51.2
0°-60°	1029.5	83.8
0°-90°	1228.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1228.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	544	544	544	544	544	
5°	544	542	536	540	539	52
15°	518	514	501	499	496	146
25°	472	461	440	431	426	217
35°	408	392	365	346	338	256
45°	336	316	282	257	246	259
55°	255	233	196	170	161	229
65°	174	150	116	94	89	172
75°	92	71	47	42	41	98
85°	23	14	12	12	12	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	543.7	543.7	543.7	543.7	543.7
2.5°	545.9	544.1	538.8	543.7	542.8
5°	543.7	541.5	536.2	540.1	539.3
7.5°	539.7	537.5	530.9	533.5	532.2
10°	534.4	531.3	523.4	523.8	521.6
12.5°	526.9	523.4	513.2	512.8	510.2
15°	518.5	513.7	501.3	499.1	496.0
17.5°	508.4	503.1	487.7	483.3	478.9
20°	496.9	489.9	473.1	467.4	462.1
22.5°	484.1	475.8	457.7	450.2	445.3
25°	471.8	460.8	440.5	431.2	426.4
27.5°	456.8	444.9	422.9	410.5	403.0
30°	441.4	428.1	403.5	388.5	381.4
32.5°	425.9	410.5	384.1	367.3	359.8
35°	408.3	392.4	365.1	346.1	338.2
37.5°	390.7	373.5	344.8	323.6	313.9
40°	373.9	354.5	323.2	300.3	290.1
42.5°	354.9	335.5	302.9	277.3	268.5
45°	335.5	315.7	281.8	256.6	246.0
47.5°	316.6	294.5	261.0	233.7	224.4
50°	295.4	274.7	239.0	211.6	201.5
52.5°	276.5	253.5	218.3	189.6	180.8
55°	254.9	233.3	195.8	170.2	161.4
57.5°	235.5	212.1	174.2	149.9	142.4
60°	215.2	190.9	154.3	130.5	123.0
62.5°	194.9	170.6	134.0	112.0	104.1
65°	174.2	149.9	115.5	93.9	89.1
67.5°	153.4	128.8	95.2	78.9	73.6
70°	133.2	109.4	78.5	63.1	58.2
72.5°	112.9	89.5	62.2	50.3	48.9
75°	92.2	71.0	46.7	42.3	41.4
77.5°	73.2	53.8	36.6	34.0	33.1
80°	55.1	37.0	27.8	26.5	25.6
82.5°	37.9	22.9	19.8	18.5	18.5
85°	23.4	13.7	12.3	11.5	11.5
87.5°	10.6	5.7	5.7	5.3	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)