

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: P333793

Luminaire Tested: **S122DS-S865D927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333793  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DS-S865D927-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 865 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2659.7 lumens  
Efficiency: N/A  
Efficacy: 76.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

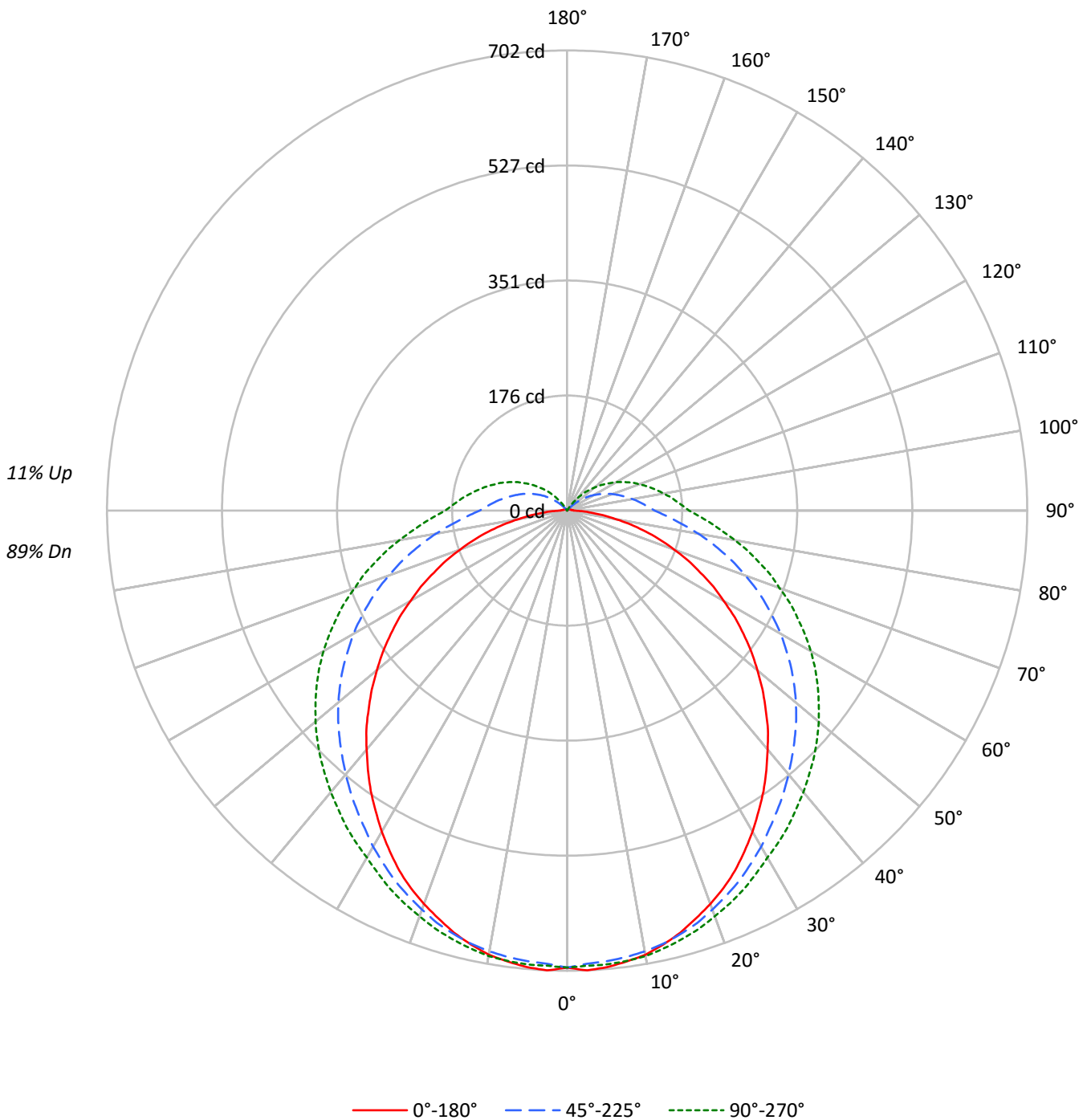
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333793

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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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72	69
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42	39
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31	29
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28	25
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25	23
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

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

	0°	45°	90°
0°	11255	11255	11255
5°	11331	11183	11264
10°	11280	11196	11312
15°	11146	11179	11315
20°	10971	11127	11318
25°	10798	11086	11357
30°	10547	11037	11395
35°	10295	11012	11590
40°	10028	11072	11818
45°	9780	11211	12157
50°	9515	11444	12587
55°	9241	11744	13137
60°	8906	12168	13863
65°	8569	12737	14819
70°	8205	13638	16263
75°	7754	15315	18846
80°	7048	18884	24138
85°	6743	30326	40793



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.1	2.5
10°-20°	189.5	7.1
20°-30°	287.2	10.8
30°-40°	349.7	13.1
40°-50°	376.2	14.1
50°-60°	365.4	13.7
60°-70°	319.1	12.0
70°-80°	245.6	9.2
80°-90°	164.5	6.2
90°-100°	113.5	4.3
100°-110°	82.9	3.1
110°-120°	54.7	2.1
120°-130°	30.5	1.1
130°-140°	12.8	0.5
140°-150°	2.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	542.8	20.4
0°-40°	892.5	33.6
0°-60°	1634.1	61.4
0°-90°	2363.2	88.9
90°-120°	251.1	9.4
90°-150°	296.5	11.1
90°-180°	297.0	11.2
0°-180°	2659.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	699	696	690	696	695	66
15°	667	669	669	678	677	188
25°	606	613	622	634	638	279
35°	522	540	559	581	588	326
45°	428	456	491	522	532	331
55°	328	365	417	454	467	294
65°	224	274	333	375	388	223
75°	124	181	246	289	302	131
85°	36	99	164	206	220	38
90°	10	69	133	174	186	7
95°	8	56	116	155	167	6
105°	5	34	87	122	133	6
115°	4	15	61	91	102	4
125°	2	2	34	62	71	2
135°	1	1	11	32	40	1
145°	0	0	0	6	11	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P333793

CATALOG NUMBER: S122DS-S865D927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	697.1	697.1	697.1	697.1	697.1
2.5°	702.1	699.1	692.0	697.1	695.0
5°	699.1	696.0	690.0	696.0	695.0
7.5°	694.0	692.0	687.0	694.0	693.0
10°	688.0	685.9	682.9	691.0	690.0
12.5°	677.9	678.9	676.9	684.9	683.9
15°	666.8	668.8	668.8	677.9	676.9
17.5°	652.6	656.6	659.7	668.8	668.8
20°	638.5	643.5	647.6	658.7	658.7
22.5°	623.3	629.4	635.4	646.5	648.6
25°	606.1	613.2	622.3	634.4	637.5
27.5°	585.9	597.0	607.1	622.3	624.3
30°	565.7	578.9	592.0	608.2	611.2
32.5°	543.5	558.7	574.8	594.0	600.1
35°	522.3	539.5	558.7	580.9	588.0
37.5°	499.1	518.2	542.5	566.7	573.8
40°	475.8	498.0	525.3	551.6	560.7
42.5°	453.6	475.8	508.1	537.4	546.5
45°	428.3	455.6	491.0	522.3	532.4
47.5°	404.1	433.4	473.8	506.1	517.2
50°	378.8	410.2	455.6	490.0	501.1
52.5°	354.6	387.9	436.4	471.8	483.9
55°	328.3	364.7	417.2	453.6	466.7
57.5°	303.1	343.5	396.0	435.4	448.5
60°	275.8	319.2	376.8	415.2	429.3
62.5°	251.5	297.0	354.6	396.0	409.1
65°	224.3	273.8	333.4	374.8	387.9
67.5°	200.0	251.5	312.2	353.6	367.7
70°	173.8	226.3	288.9	332.4	344.5
72.5°	149.5	204.1	267.7	310.1	325.3
75°	124.3	180.8	245.5	288.9	302.1
77.5°	100.0	158.6	224.3	267.7	281.9
80°	75.8	137.4	203.1	245.5	259.6
82.5°	55.6	116.2	182.9	225.3	238.4
85°	36.4	99.0	163.7	206.1	220.2
87.5°	22.2	82.8	147.5	188.9	202.0
90°	10.1	68.7	133.4	173.8	185.9
92.5°	9.1	62.6	124.3	163.7	175.8
95°	8.1	55.6	116.2	154.6	166.7
97.5°	7.1	50.5	109.1	146.5	158.6
100°	7.1	44.5	101.0	138.4	149.5
102.5°	6.1	39.4	94.0	130.3	141.4
105°	5.1	34.3	86.9	122.2	133.4
107.5°	5.1	29.3	79.8	114.2	125.3
110°	4.0	24.2	73.7	106.1	117.2



TEST NUMBER: P333793

CATALOG NUMBER: S122DS-S865D927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	20.2	66.7	99.0	110.1
115°	4.0	15.2	60.6	90.9	102.0
117.5°	3.0	11.1	53.5	83.8	94.0
120°	3.0	7.1	47.5	75.8	86.9
122.5°	3.0	4.0	41.4	68.7	77.8
125°	2.0	2.0	34.3	61.6	70.7
127.5°	2.0	1.0	28.3	53.5	62.6
130°	2.0	1.0	22.2	46.5	54.6
132.5°	2.0	1.0	16.2	39.4	47.5
135°	1.0	1.0	11.1	32.3	40.4
137.5°	1.0	1.0	6.1	25.3	32.3
140°	1.0	0.0	2.0	18.2	24.2
142.5°	1.0	0.0	0.0	12.1	17.2
145°	0.0	0.0	0.0	6.1	11.1
147.5°	0.0	0.0	0.0	1.0	4.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)