

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: P242322

Luminaire Tested: **S122DR-S865D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242322
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: S122DR-S865D927-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 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/ Sides (W: 0.15' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

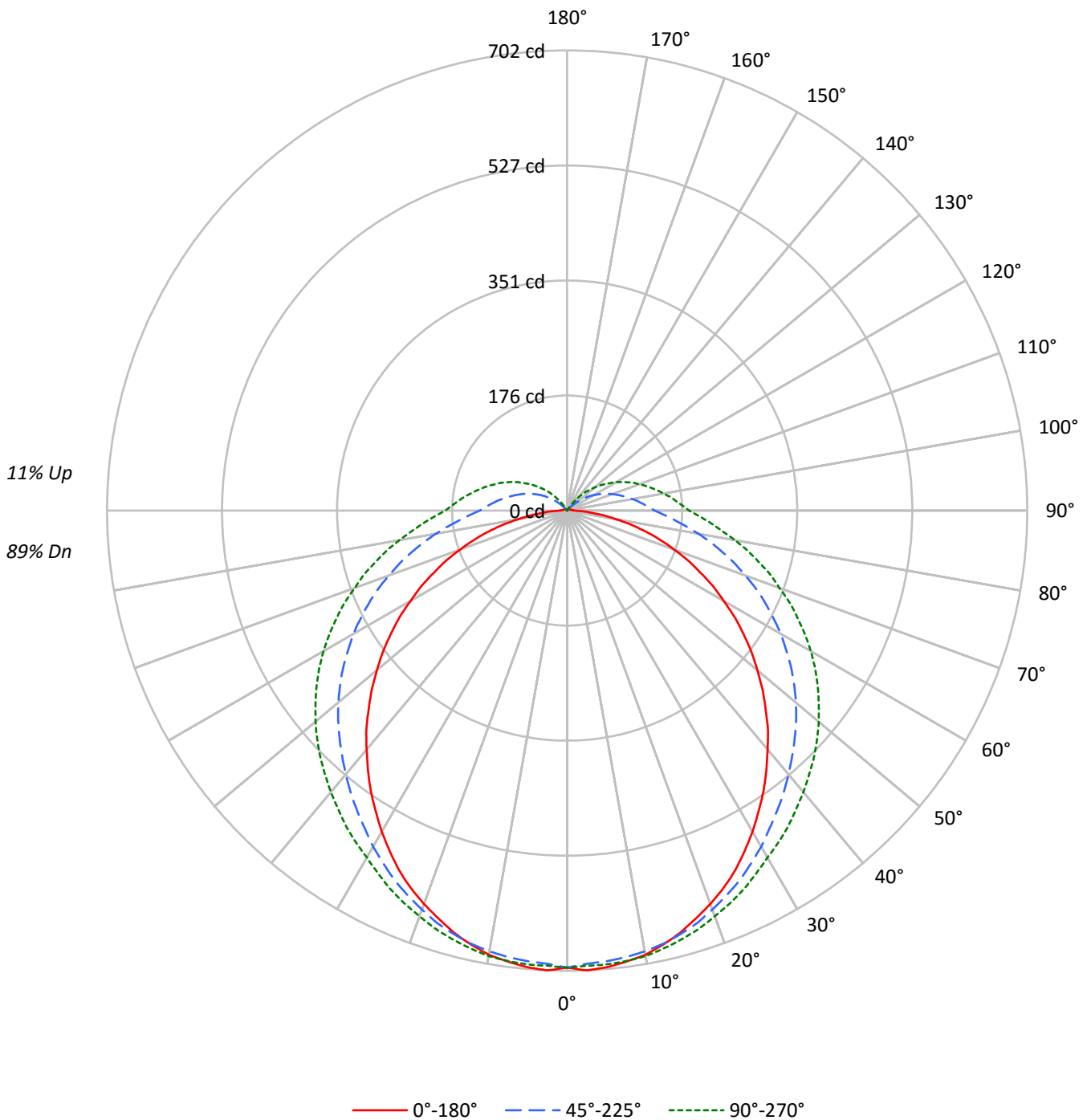
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	13278	13278	13278
5°	13342	12726	12656
10°	13257	12299	12124
15°	13074	11857	11576
20°	12842	11389	11053
25°	12612	10940	10579
30°	12290	10483	10108
35°	11965	10043	9766
40°	11621	9662	9424
45°	11294	9319	9127
50°	10944	9003	8834
55°	10578	8666	8534
60°	10129	8316	8219
65°	9664	7913	7856
70°	9139	7477	7466
75°	8468	7045	7097
80°	7411	6596	6715
85°	6386	6177	6390



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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



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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



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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)