

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: P242330

Luminaire Tested: **S122DR-S485D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242330
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-S485D835-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1890.4 lumens
Efficiency: N/A
Efficacy: 100.6 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

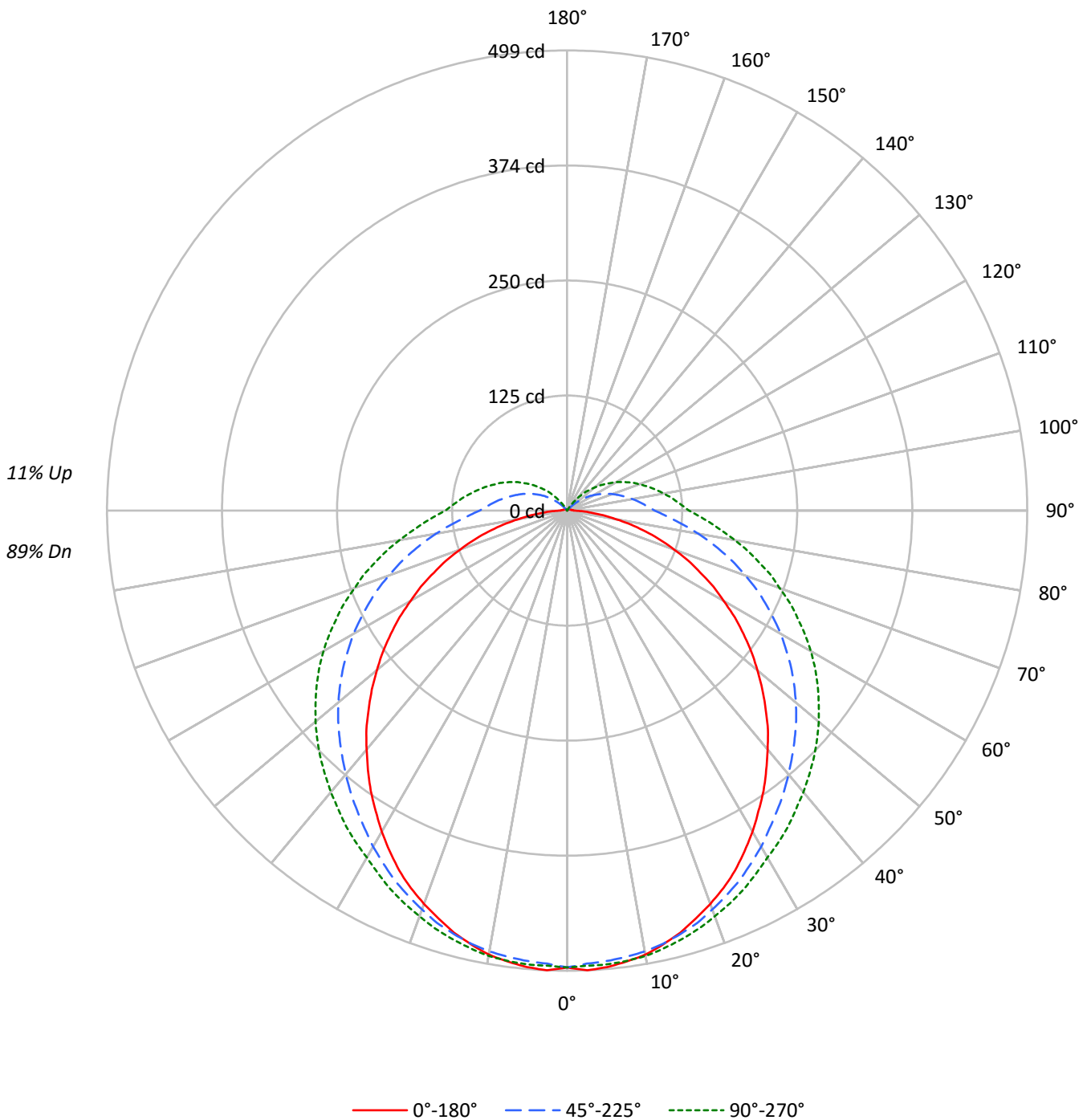
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9436	9436	9436
5°	9483	9045	8996
10°	9422	8742	8617
15°	9292	8426	8227
20°	9127	8095	7857
25°	8964	7776	7519
30°	8735	7452	7184
35°	8503	7138	6940
40°	8260	6868	6697
45°	8027	6624	6487
50°	7781	6398	6277
55°	7520	6159	6066
60°	7199	5910	5843
65°	6868	5622	5584
70°	6494	5316	5305
75°	6016	5007	5044
80°	5270	4686	4772
85°	4526	4388	4541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.0	2.5
10°-20°	134.7	7.1
20°-30°	204.1	10.8
30°-40°	248.5	13.1
40°-50°	267.4	14.1
50°-60°	259.7	13.7
60°-70°	226.8	12.0
70°-80°	174.5	9.2
80°-90°	116.9	6.2
90°-100°	80.7	4.3
100°-110°	58.9	3.1
110°-120°	38.9	2.1
120°-130°	21.7	1.1
130°-140°	9.1	0.5
140°-150°	1.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	385.8	20.4
0°-40°	634.3	33.6
0°-60°	1161.4	61.4
0°-90°	1679.7	88.9
90°-120°	178.5	9.4
90°-150°	210.7	11.1
90°-180°	211.0	11.2
0°-180°	1890.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	495	495	495	495	495	
5°	497	495	490	495	494	47
15°	474	475	475	482	481	133
25°	431	436	442	451	453	198
35°	371	383	397	413	418	232
45°	304	324	349	371	378	235
55°	233	259	296	322	332	209
65°	159	195	237	266	276	158
75°	88	128	174	205	215	93
85°	26	70	116	146	156	27
90°	7	49	95	124	132	5
95°	6	40	83	110	118	4
105°	4	24	62	87	95	4
115°	3	11	43	65	72	3
125°	1	1	24	44	50	2
135°	1	1	8	23	29	1
145°	0	0	0	4	8	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°	495.4	495.4	495.4	495.4	495.4
2.5°	499.0	496.9	491.8	495.4	494.0
5°	496.9	494.7	490.4	494.7	494.0
7.5°	493.3	491.8	488.3	493.3	492.6
10°	489.0	487.5	485.4	491.1	490.4
12.5°	481.8	482.5	481.1	486.8	486.1
15°	473.9	475.3	475.3	481.8	481.1
17.5°	463.8	466.7	468.9	475.3	475.3
20°	453.8	457.4	460.3	468.2	468.2
22.5°	443.0	447.3	451.6	459.5	461.0
25°	430.8	435.8	442.3	450.9	453.1
27.5°	416.5	424.4	431.5	442.3	443.7
30°	402.1	411.4	420.8	432.3	434.4
32.5°	386.3	397.1	408.6	422.2	426.5
35°	371.2	383.4	397.1	412.9	417.9
37.5°	354.7	368.3	385.6	402.8	407.8
40°	338.2	354.0	373.4	392.0	398.5
42.5°	322.4	338.2	361.2	382.0	388.5
45°	304.4	323.8	349.0	371.2	378.4
47.5°	287.2	308.0	336.8	359.7	367.6
50°	269.3	291.5	323.8	348.2	356.1
52.5°	252.0	275.7	310.2	335.3	343.9
55°	233.4	259.2	296.5	322.4	331.7
57.5°	215.4	244.1	281.5	309.5	318.8
60°	196.0	226.9	267.8	295.1	305.2
62.5°	178.8	211.1	252.0	281.5	290.8
65°	159.4	194.6	236.9	266.4	275.7
67.5°	142.2	178.8	221.9	251.3	261.4
70°	123.5	160.8	205.4	236.2	244.8
72.5°	106.3	145.0	190.3	220.4	231.2
75°	88.3	128.5	174.5	205.4	214.7
77.5°	71.1	112.7	159.4	190.3	200.3
80°	53.9	97.7	144.3	174.5	184.5
82.5°	39.5	82.6	130.0	160.1	169.5
85°	25.8	70.4	116.3	146.5	156.5
87.5°	15.8	58.9	104.8	134.3	143.6
90°	7.2	48.8	94.8	123.5	132.1
92.5°	6.5	44.5	88.3	116.3	124.9
95°	5.7	39.5	82.6	109.9	118.5
97.5°	5.0	35.9	77.5	104.1	112.7
100°	5.0	31.6	71.8	98.4	106.3
102.5°	4.3	28.0	66.8	92.6	100.5
105°	3.6	24.4	61.8	86.9	94.8
107.5°	3.6	20.8	56.7	81.1	89.0
110°	2.9	17.2	52.4	75.4	83.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	14.4	47.4	70.4	78.3
115°	2.9	10.8	43.1	64.6	72.5
117.5°	2.2	7.9	38.1	59.6	66.8
120°	2.2	5.0	33.7	53.9	61.8
122.5°	2.2	2.9	29.4	48.8	55.3
125°	1.4	1.4	24.4	43.8	50.3
127.5°	1.4	0.7	20.1	38.1	44.5
130°	1.4	0.7	15.8	33.0	38.8
132.5°	1.4	0.7	11.5	28.0	33.7
135°	0.7	0.7	7.9	23.0	28.7
137.5°	0.7	0.7	4.3	18.0	23.0
140°	0.7	0.0	1.4	12.9	17.2
142.5°	0.7	0.0	0.0	8.6	12.2
145°	0.0	0.0	0.0	4.3	7.9
147.5°	0.0	0.0	0.0	0.7	2.9
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)