

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: P242331

Luminaire Tested: **S122DR-S865D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242331
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-S865D835-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: 3357.5 lumens
Efficiency: N/A
Efficacy: 96.5 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

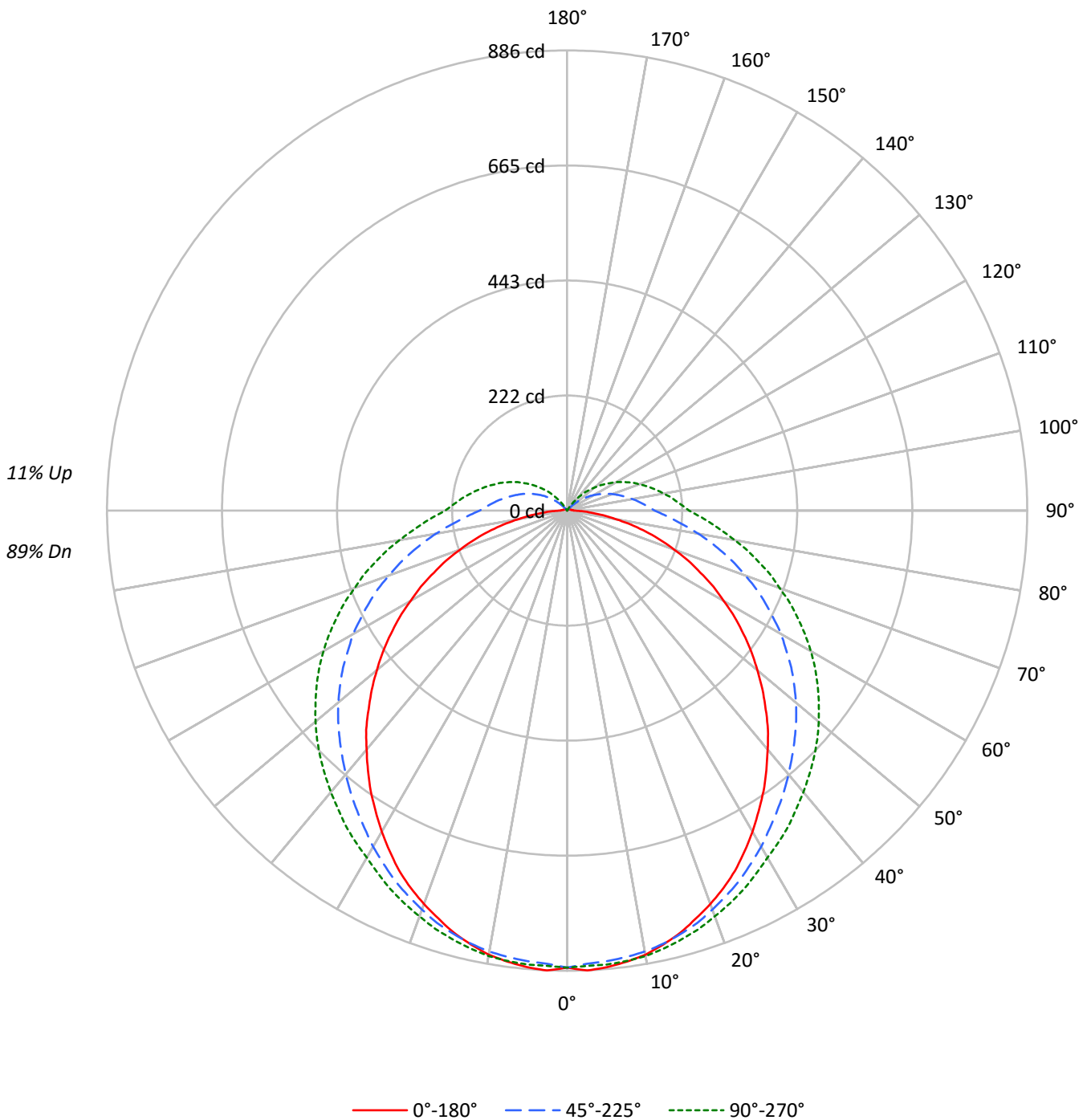
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16760	16760	16760
5°	16842	16065	15978
10°	16733	15527	15304
15°	16503	14966	14611
20°	16211	14375	13953
25°	15920	13811	13354
30°	15514	13233	12759
35°	15103	12677	12326
40°	14669	12197	11896
45°	14258	11764	11521
50°	13816	11364	11150
55°	13355	10940	10774
60°	12785	10498	10377
65°	12197	9987	9918
70°	11532	9439	9425
75°	10689	8893	8958
80°	9347	8323	8477
85°	8052	7795	8067



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.4	2.5
10°-20°	239.2	7.1
20°-30°	362.5	10.8
30°-40°	441.4	13.1
40°-50°	474.9	14.1
50°-60°	461.2	13.7
60°-70°	402.8	12.0
70°-80°	310.0	9.2
80°-90°	207.6	6.2
90°-100°	143.2	4.3
100°-110°	104.6	3.1
110°-120°	69.1	2.1
120°-130°	38.5	1.1
130°-140°	16.2	0.5
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	685.2	20.4
0°-40°	1126.6	33.6
0°-60°	2062.7	61.4
0°-90°	2983.2	88.9
90°-120°	316.9	9.4
90°-150°	374.3	11.1
90°-180°	374.0	11.1
0°-180°	3357.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	882	879	871	879	877	84
15°	842	844	844	856	854	237
25°	765	774	786	801	805	352
35°	659	681	705	733	742	412
45°	541	575	620	659	672	417
55°	414	460	527	573	589	371
65°	283	346	421	473	490	281
75°	157	228	310	365	381	166
85°	46	125	207	260	278	48
90°	13	87	168	219	235	9
95°	10	70	147	195	210	8
105°	6	43	110	154	168	7
115°	5	19	76	115	129	5
125°	3	3	43	78	89	3
135°	1	1	14	41	51	1
145°	0	0	0	8	14	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°	879.9	879.9	879.9	879.9	879.9
2.5°	886.3	882.5	873.5	879.9	877.4
5°	882.5	878.6	871.0	878.6	877.4
7.5°	876.1	873.5	867.2	876.1	874.8
10°	868.4	865.9	862.1	872.3	871.0
12.5°	855.7	857.0	854.4	864.6	863.3
15°	841.7	844.2	844.2	855.7	854.4
17.5°	823.8	828.9	832.7	844.2	844.2
20°	806.0	812.3	817.4	831.5	831.5
22.5°	786.8	794.5	802.1	816.2	818.7
25°	765.1	774.1	785.6	800.9	804.7
27.5°	739.6	753.7	766.4	785.6	788.1
30°	714.1	730.7	747.3	767.7	771.5
32.5°	686.1	705.2	725.6	749.8	757.5
35°	659.3	681.0	705.2	733.3	742.2
37.5°	630.0	654.2	684.8	715.4	724.3
40°	600.6	628.7	663.1	696.3	707.8
42.5°	572.6	600.6	641.4	678.4	689.9
45°	540.7	575.1	619.8	659.3	672.1
47.5°	510.1	547.1	598.1	638.9	652.9
50°	478.2	517.8	575.1	618.5	632.5
52.5°	447.6	489.7	550.9	595.5	610.8
55°	414.5	460.4	526.7	572.6	589.2
57.5°	382.6	433.6	499.9	549.6	566.2
60°	348.1	403.0	475.7	524.1	542.0
62.5°	317.5	374.9	447.6	499.9	516.5
65°	283.1	345.6	420.8	473.1	489.7
67.5°	252.5	317.5	394.1	446.3	464.2
70°	219.3	285.7	364.7	419.6	434.9
72.5°	188.7	257.6	337.9	391.5	410.6
75°	156.9	228.3	309.9	364.7	381.3
77.5°	126.2	200.2	283.1	337.9	355.8
80°	95.6	173.4	256.3	309.9	327.7
82.5°	70.1	146.7	230.8	284.4	301.0
85°	45.9	125.0	206.6	260.2	278.0
87.5°	28.1	104.6	186.2	238.5	255.0
90°	12.8	86.7	168.3	219.3	234.6
92.5°	11.5	79.1	156.9	206.6	221.9
95°	10.2	70.1	146.7	195.1	210.4
97.5°	8.9	63.8	137.7	184.9	200.2
100°	8.9	56.1	127.5	174.7	188.7
102.5°	7.7	49.7	118.6	164.5	178.5
105°	6.4	43.4	109.7	154.3	168.3
107.5°	6.4	37.0	100.7	144.1	158.1
110°	5.1	30.6	93.1	133.9	147.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.1	25.5	84.2	125.0	139.0
115°	5.1	19.1	76.5	114.8	128.8
117.5°	3.8	14.0	67.6	105.8	118.6
120°	3.8	8.9	59.9	95.6	109.7
122.5°	3.8	5.1	52.3	86.7	98.2
125°	2.6	2.6	43.4	77.8	89.3
127.5°	2.6	1.3	35.7	67.6	79.1
130°	2.6	1.3	28.1	58.7	68.9
132.5°	2.6	1.3	20.4	49.7	59.9
135°	1.3	1.3	14.0	40.8	51.0
137.5°	1.3	1.3	7.7	31.9	40.8
140°	1.3	0.0	2.6	23.0	30.6
142.5°	1.3	0.0	0.0	15.3	21.7
145°	0.0	0.0	0.0	7.7	14.0
147.5°	0.0	0.0	0.0	1.3	5.1
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)