

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: P243192

Luminaire Tested: **S122DR-H1005D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243192
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-53)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-H1005D835-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3875.5 lumens
Efficiency: N/A
Efficacy: 102.8 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

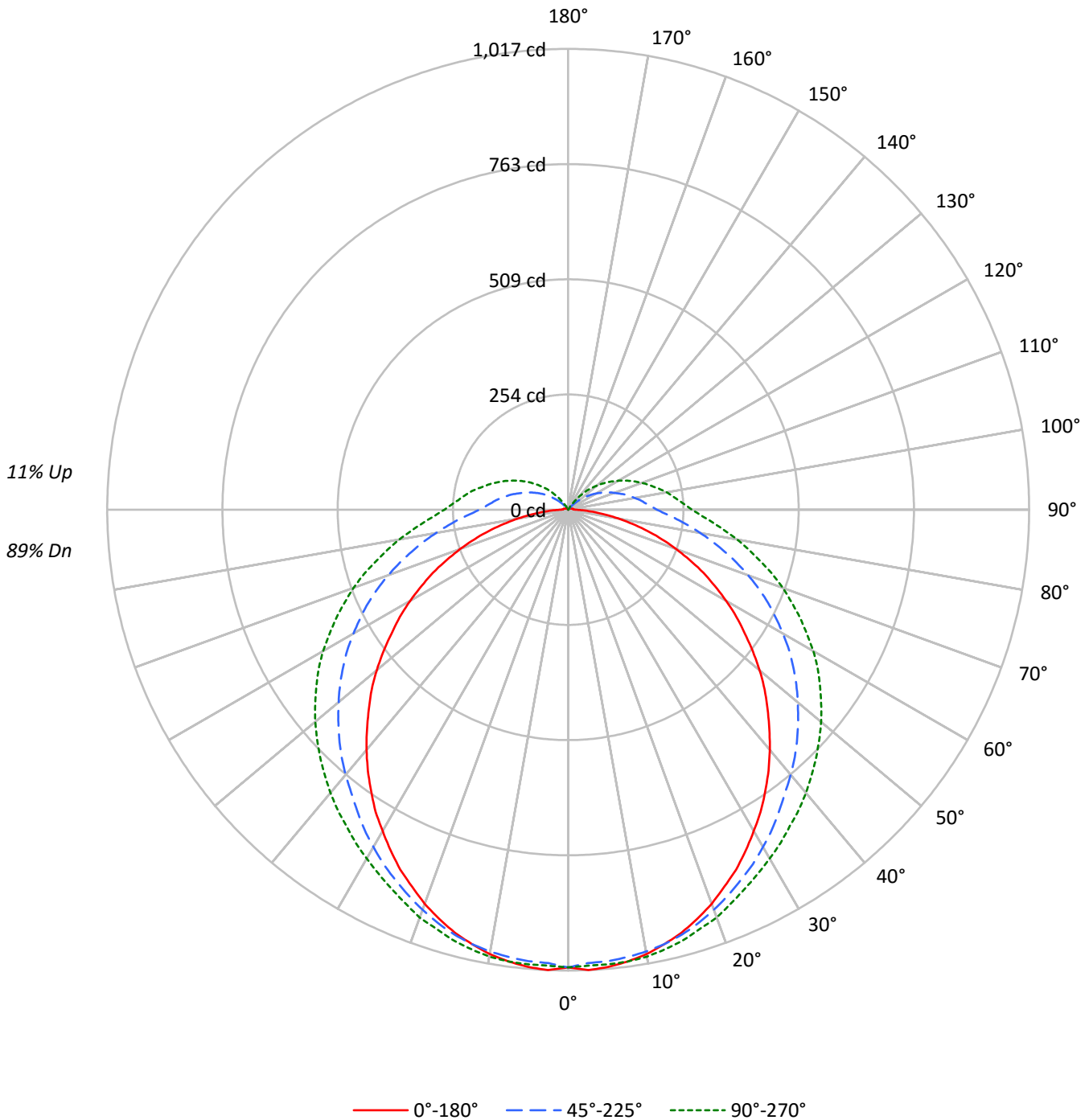
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	84	81	82	79	76	77	74	72	69
2	93	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	41	39
5	71	57	48	41	68	55	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	41	36	31	29
7	60	46	37	31	58	45	37	30	42	35	29	40	33	28	38	32	28	25
8	56	42	33	27	54	41	33	27	39	31	26	37	30	25	35	29	25	22
9	52	39	30	25	50	38	30	24	36	28	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°	19238	19238	19238
5°	19329	18446	18339
10°	19189	17835	17598
15°	18946	17207	16814
20°	18616	16524	16074
25°	18234	15850	15312
30°	17786	15218	14703
35°	17369	14589	14157
40°	16904	14049	13711
45°	16395	13563	13261
50°	15931	13063	12844
55°	15317	12594	12398
60°	14775	12076	11957
65°	14179	11551	11425
70°	13314	10922	10913
75°	12365	10253	10311
80°	10999	9593	9788
85°	9631	9075	9266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	2.5
10°-20°	274.9	7.1
20°-30°	416.4	10.7
30°-40°	507.9	13.1
40°-50°	546.6	14.1
50°-60°	531.4	13.7
60°-70°	464.6	12.0
70°-80°	357.7	9.2
80°-90°	240.3	6.2
90°-100°	166.4	4.3
100°-110°	122.3	3.2
110°-120°	81.4	2.1
120°-130°	46.1	1.2
130°-140°	19.8	0.5
140°-150°	3.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	787.2	20.3
0°-40°	1295.1	33.4
0°-60°	2373.2	61.2
0°-90°	3435.8	88.7
90°-120°	370.1	9.6
90°-150°	439.7	11.3
90°-180°	440.0	11.4
0°-180°	3875.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1013	1008	1000	1008	1007	96
15°	966	971	971	983	983	272
25°	876	890	902	921	923	403
35°	758	784	812	843	852	474
45°	622	660	715	758	774	480
55°	475	532	606	661	678	426
65°	329	400	487	546	564	324
75°	182	264	357	421	439	191
85°	55	145	240	301	319	56
90°	16	101	196	255	273	10
95°	11	82	170	226	243	9
105°	8	51	129	180	196	9
115°	6	24	90	135	150	6
125°	4	3	54	91	106	3
135°	1	1	18	49	62	2
145°	1	0	0	11	17	1
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°	1010.0	1010.0	1010.0	1010.0	1010.0
2.5°	1017.0	1012.8	1001.5	1010.0	1007.1
5°	1012.8	1008.5	1000.1	1008.5	1007.1
7.5°	1005.7	1002.9	995.9	1007.1	1005.7
10°	995.9	994.5	990.3	1001.5	1001.5
12.5°	981.8	983.2	981.8	994.5	993.1
15°	966.3	970.6	970.6	983.2	983.2
17.5°	946.7	953.7	956.5	970.6	969.2
20°	925.6	934.0	939.6	955.1	957.9
22.5°	900.2	912.9	921.3	938.2	939.6
25°	876.3	890.4	901.6	921.3	922.7
27.5°	848.2	865.1	882.0	901.6	905.9
30°	818.7	839.8	859.4	883.4	889.0
32.5°	790.5	811.6	836.9	862.3	872.1
35°	758.2	783.5	811.6	842.6	852.4
37.5°	725.8	752.5	786.3	822.9	835.5
40°	692.1	723.0	763.8	803.2	815.8
42.5°	656.9	690.6	739.9	780.7	794.7
45°	621.7	659.7	714.6	758.2	773.6
47.5°	588.0	628.8	687.8	737.1	751.1
50°	551.4	596.4	661.1	711.7	728.6
52.5°	513.4	564.1	634.4	686.4	703.3
55°	475.4	531.7	606.3	661.1	678.0
57.5°	440.3	499.3	578.1	633.0	652.7
60°	402.3	465.6	547.2	604.8	624.5
62.5°	364.3	433.2	516.2	575.3	593.6
65°	329.1	399.5	486.7	545.8	564.1
67.5°	289.8	364.3	454.3	516.2	533.1
70°	253.2	332.0	422.0	483.9	503.6
72.5°	216.6	296.8	389.6	451.5	472.6
75°	181.5	264.4	357.3	420.6	438.9
77.5°	144.9	232.1	326.3	389.6	407.9
80°	112.5	199.7	295.4	358.7	378.4
82.5°	80.2	170.2	267.3	329.1	347.4
85°	54.9	144.9	240.5	301.0	319.3
87.5°	32.4	121.0	215.2	275.7	294.0
90°	15.5	101.3	195.5	254.6	272.9
92.5°	12.7	91.4	181.5	239.1	257.4
95°	11.3	81.6	170.2	226.5	243.3
97.5°	11.3	74.6	160.4	215.2	232.1
100°	9.8	66.1	149.1	202.6	220.8
102.5°	9.8	57.7	139.3	191.3	208.2
105°	8.4	50.6	129.4	180.0	195.5
107.5°	7.0	43.6	118.2	168.8	184.3
110°	7.0	36.6	108.3	157.5	173.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.6	30.9	99.9	146.3	161.8
115°	5.6	23.9	90.0	135.0	150.5
117.5°	5.6	16.9	80.2	123.8	139.3
120°	4.2	11.3	71.7	113.9	128.0
122.5°	4.2	7.0	61.9	102.7	116.7
125°	4.2	2.8	53.5	91.4	105.5
127.5°	2.8	2.8	43.6	81.6	94.2
130°	2.8	1.4	35.2	70.3	83.0
132.5°	2.8	1.4	26.7	60.5	71.7
135°	1.4	1.4	18.3	49.2	61.9
137.5°	1.4	1.4	9.8	39.4	49.2
140°	1.4	0.0	4.2	29.5	38.0
142.5°	1.4	0.0	0.0	19.7	28.1
145°	1.4	0.0	0.0	11.3	16.9
147.5°	0.0	0.0	0.0	2.8	8.4
150°	0.0	0.0	0.0	0.0	1.4
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)