

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: P243185

Luminaire Tested: **S122DR-H485D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243185
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-H485D830-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1731.3 lumens
Efficiency: N/A
Efficacy: 100.7 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

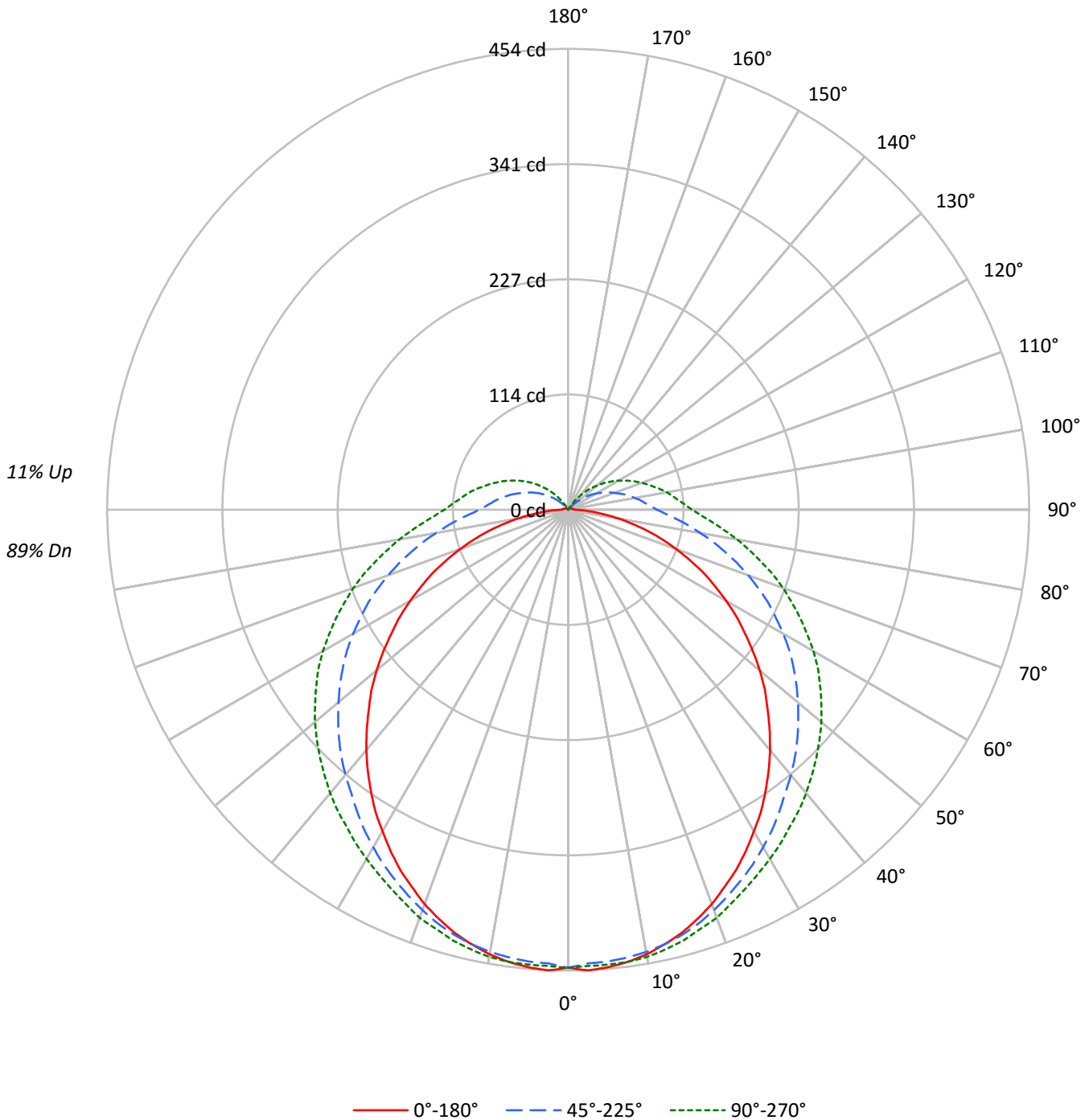
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8594	8594	8594
5°	8634	8241	8193
10°	8573	7968	7861
15°	8464	7687	7511
20°	8317	7383	7180
25°	8146	7081	6840
30°	7945	6798	6567
35°	7759	6518	6324
40°	7552	6276	6126
45°	7323	6058	5924
50°	7116	5835	5738
55°	6843	5625	5539
60°	6600	5394	5342
65°	6333	5160	5104
70°	5947	4878	4876
75°	5525	4580	4607
80°	4918	4287	4372
85°	4298	4056	4138



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.8	2.5
10°-20°	122.8	7.1
20°-30°	186.0	10.7
30°-40°	226.9	13.1
40°-50°	244.2	14.1
50°-60°	237.4	13.7
60°-70°	207.6	12.0
70°-80°	159.8	9.2
80°-90°	107.4	6.2
90°-100°	74.3	4.3
100°-110°	54.7	3.2
110°-120°	36.4	2.1
120°-130°	20.6	1.2
130°-140°	8.8	0.5
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	351.7	20.3
0°-40°	578.6	33.4
0°-60°	1060.2	61.2
0°-90°	1534.9	88.7
90°-120°	165.3	9.5
90°-150°	196.4	11.3
90°-180°	196.0	11.3
0°-180°	1731.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	451	451	451	451	451	
5°	452	450	447	450	450	43
15°	432	434	434	439	439	122
25°	392	398	403	412	412	180
35°	339	350	363	376	381	212
45°	278	295	319	339	346	215
55°	212	238	271	295	303	190
65°	147	178	217	244	252	145
75°	81	118	160	188	196	86
85°	24	65	108	134	143	25
90°	7	45	87	114	122	5
95°	5	36	76	101	109	4
105°	4	23	58	80	87	4
115°	2	11	40	60	67	2
125°	2	1	24	41	47	2
135°	1	1	8	22	28	1
145°	1	0	0	5	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°	451.2	451.2	451.2	451.2	451.2
2.5°	454.3	452.4	447.4	451.2	449.9
5°	452.4	450.5	446.8	450.5	449.9
7.5°	449.3	448.0	444.9	449.9	449.3
10°	444.9	444.3	442.4	447.4	447.4
12.5°	438.6	439.2	438.6	444.3	443.6
15°	431.7	433.6	433.6	439.2	439.2
17.5°	422.9	426.0	427.3	433.6	433.0
20°	413.5	417.2	419.8	426.7	427.9
22.5°	402.2	407.8	411.6	419.1	419.8
25°	391.5	397.8	402.8	411.6	412.2
27.5°	378.9	386.5	394.0	402.8	404.7
30°	365.7	375.1	383.9	394.6	397.1
32.5°	353.1	362.6	373.9	385.2	389.6
35°	338.7	350.0	362.6	376.4	380.8
37.5°	324.2	336.2	351.3	367.6	373.3
40°	309.2	323.0	341.2	358.8	364.5
42.5°	293.5	308.5	330.5	348.7	355.0
45°	277.7	294.7	319.2	338.7	345.6
47.5°	262.7	280.9	307.3	329.3	335.6
50°	246.3	266.4	295.3	318.0	325.5
52.5°	229.4	252.0	283.4	306.6	314.2
55°	212.4	237.5	270.8	295.3	302.9
57.5°	196.7	223.1	258.3	282.8	291.6
60°	179.7	208.0	244.4	270.2	279.0
62.5°	162.7	193.5	230.6	257.0	265.2
65°	147.0	178.5	217.4	243.8	252.0
67.5°	129.4	162.7	203.0	230.6	238.2
70°	113.1	148.3	188.5	216.2	225.0
72.5°	96.8	132.6	174.1	201.7	211.1
75°	81.1	118.1	159.6	187.9	196.1
77.5°	64.7	103.7	145.8	174.1	182.2
80°	50.3	89.2	132.0	160.2	169.0
82.5°	35.8	76.0	119.4	147.0	155.2
85°	24.5	64.7	107.5	134.5	142.6
87.5°	14.5	54.0	96.1	123.2	131.3
90°	6.9	45.2	87.3	113.7	121.9
92.5°	5.7	40.8	81.1	106.8	115.0
95°	5.0	36.4	76.0	101.2	108.7
97.5°	5.0	33.3	71.6	96.1	103.7
100°	4.4	29.5	66.6	90.5	98.7
102.5°	4.4	25.8	62.2	85.5	93.0
105°	3.8	22.6	57.8	80.4	87.3
107.5°	3.1	19.5	52.8	75.4	82.3
110°	3.1	16.3	48.4	70.4	77.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.5	13.8	44.6	65.4	72.3
115°	2.5	10.7	40.2	60.3	67.2
117.5°	2.5	7.5	35.8	55.3	62.2
120°	1.9	5.0	32.0	50.9	57.2
122.5°	1.9	3.1	27.6	45.9	52.2
125°	1.9	1.3	23.9	40.8	47.1
127.5°	1.3	1.3	19.5	36.4	42.1
130°	1.3	0.6	15.7	31.4	37.1
132.5°	1.3	0.6	11.9	27.0	32.0
135°	0.6	0.6	8.2	22.0	27.6
137.5°	0.6	0.6	4.4	17.6	22.0
140°	0.6	0.0	1.9	13.2	17.0
142.5°	0.6	0.0	0.0	8.8	12.6
145°	0.6	0.0	0.0	5.0	7.5
147.5°	0.0	0.0	0.0	1.3	3.8
150°	0.0	0.0	0.0	0.0	0.6
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)