

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: P242963

Luminaire Tested: **S121DR-H490D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242963
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H490D935-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1571.3 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

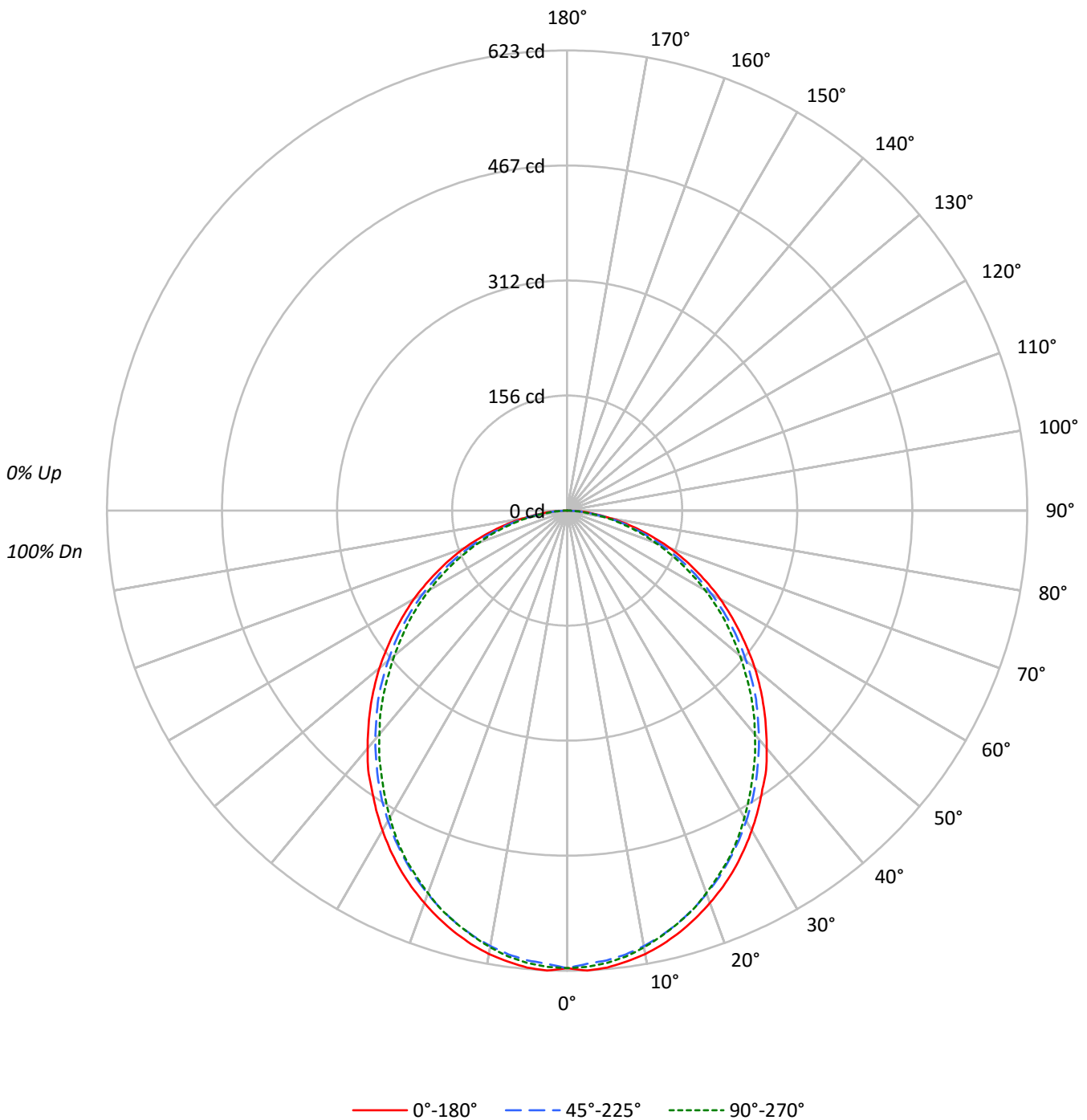
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18353	18353	18353
5°	18473	18182	18286
10°	18341	18013	18064
15°	18120	17749	17749
20°	17828	17412	17377
25°	17510	17020	16964
30°	17107	16594	16419
35°	16671	16132	15843
40°	16253	15630	15297
45°	15781	15152	14720
50°	15295	14580	14078
55°	14707	14025	13493
60°	14187	13369	12788
65°	13482	12634	11954
70°	12778	11739	10994
75°	11700	10647	9994
80°	10187	9402	8719
85°	8771	7207	6051



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	3.7
10°-20°	164.2	10.5
20°-30°	241.4	15.4
30°-40°	280.2	17.8
40°-50°	279.5	17.8
50°-60°	243.3	15.5
60°-70°	179.1	11.4
70°-80°	99.7	6.3
80°-90°	25.6	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	464.0	29.5
0°-40°	744.2	47.4
0°-60°	1266.9	80.6
0°-90°	1571.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1571.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	619	619	619	619	619	
5°	621	618	611	616	615	59
15°	591	587	579	581	579	166
25°	536	529	521	521	519	246
35°	461	455	446	441	438	289
45°	377	370	362	354	351	290
55°	285	280	272	264	261	255
65°	192	188	180	173	170	191
75°	102	98	93	89	87	108
85°	26	24	21	18	18	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	619.4	619.4	619.4	619.4	619.4
2.5°	623.4	619.9	614.2	619.4	618.2
5°	621.1	617.6	611.3	615.9	614.8
7.5°	615.9	613.0	606.2	610.2	609.0
10°	609.6	606.2	598.7	602.1	600.4
12.5°	601.0	598.1	589.5	592.4	590.1
15°	590.7	587.2	578.6	580.9	578.6
17.5°	578.6	575.2	566.0	567.7	566.6
20°	565.4	560.8	552.2	553.3	551.1
22.5°	551.1	545.9	537.3	537.3	535.0
25°	535.6	529.2	520.6	520.6	518.9
27.5°	518.3	512.6	503.4	502.3	500.5
30°	500.0	494.2	485.0	482.7	479.9
32.5°	481.0	474.7	466.1	462.1	459.2
35°	460.9	455.2	446.0	440.8	438.0
37.5°	442.6	434.5	424.8	420.2	417.9
40°	420.2	413.3	404.1	397.8	395.5
42.5°	398.4	392.1	382.3	376.0	374.3
45°	376.6	370.2	361.6	354.2	351.3
47.5°	354.2	347.9	339.2	331.8	327.8
50°	331.8	325.5	316.3	308.8	305.4
52.5°	308.2	303.7	293.9	287.0	282.4
55°	284.7	279.5	271.5	264.0	261.2
57.5°	261.8	257.2	248.5	240.5	238.8
60°	239.4	234.8	225.6	218.7	215.8
62.5°	215.8	211.2	202.6	195.7	192.9
65°	192.3	188.3	180.2	172.8	170.5
67.5°	170.5	165.3	157.9	151.0	148.1
70°	147.5	141.8	135.5	129.7	126.9
72.5°	124.6	120.0	114.8	109.1	107.9
75°	102.2	97.6	93.0	89.0	87.3
77.5°	80.9	77.5	74.0	70.0	68.9
80°	59.7	57.4	55.1	52.2	51.1
82.5°	41.9	40.2	36.7	34.4	33.3
85°	25.8	24.1	21.2	18.4	17.8
87.5°	12.1	9.8	7.5	6.3	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)