

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: P242109

Luminaire Tested: **S121DR-S685D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242109
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S685D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2452.5 lumens
Efficiency: N/A
Efficacy: 93.6 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

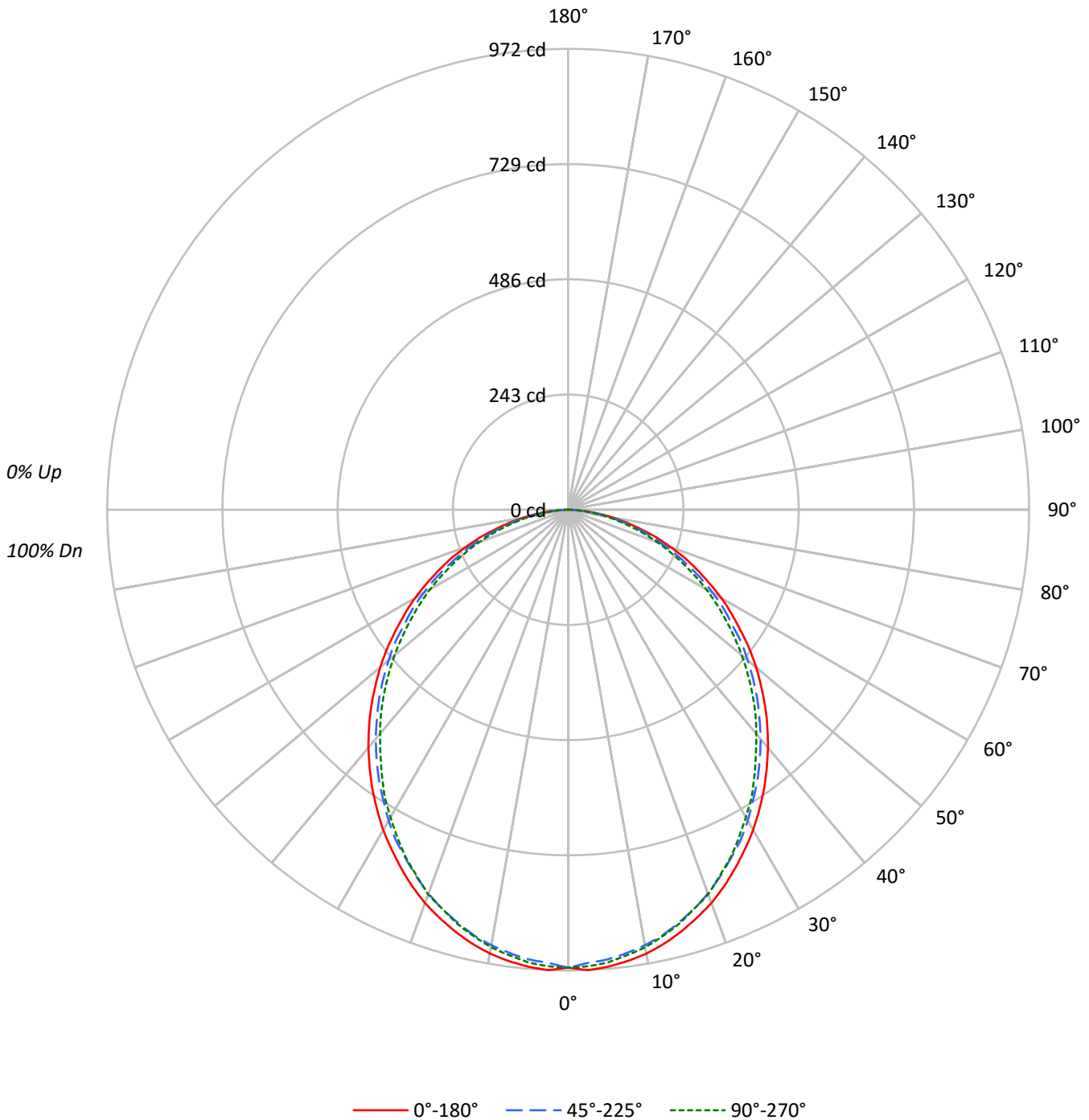
Input Watts (W): 26.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	96	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	72	66	88	79	71	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°	28613	28613	28613
5°	28776	28324	28512
10°	28601	28062	28197
15°	28255	27653	27736
20°	27836	27161	27218
25°	27256	26530	26471
30°	26693	25903	25626
35°	26029	25157	24770
40°	25350	24418	23869
45°	24622	23616	23017
50°	23841	22771	22034
55°	22895	21743	20958
60°	22086	20924	19976
65°	21005	19631	18628
70°	19778	18305	17300
75°	18168	16634	15512
80°	16125	14606	13548
85°	13327	10913	9689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	3.7
10°-20°	256.1	10.4
20°-30°	376.6	15.4
30°-40°	437.3	17.8
40°-50°	436.3	17.8
50°-60°	379.7	15.5
60°-70°	279.6	11.4
70°-80°	155.8	6.4
80°-90°	40.2	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°	723.6	29.5
0°-40°	1160.9	47.3
0°-60°	1976.9	80.6
0°-90°	2452.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2452.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	968	963	952	960	959	92
15°	921	914	902	908	904	260
25°	834	825	812	813	810	384
35°	720	711	696	688	685	450
45°	588	578	564	553	549	453
55°	443	438	421	413	406	398
65°	300	293	280	271	266	297
75°	159	154	145	139	136	169
85°	39	38	32	30	28	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	965.7	965.7	965.7	965.7	965.7
2.5°	972.0	966.6	956.8	964.8	963.9
5°	967.5	963.0	952.3	960.4	958.6
7.5°	960.4	955.0	943.4	950.6	947.9
10°	950.6	945.2	932.7	938.1	937.2
12.5°	937.2	930.9	919.4	923.8	921.1
15°	921.1	914.0	901.5	907.8	904.2
17.5°	902.4	894.4	882.8	886.4	882.8
20°	882.8	873.9	861.4	865.0	863.2
22.5°	859.6	851.6	837.3	839.1	835.5
25°	833.7	824.8	811.5	813.2	809.7
27.5°	807.0	799.0	786.5	783.8	779.4
30°	780.2	770.4	757.1	753.5	749.0
32.5°	749.9	741.0	725.9	722.3	719.6
35°	719.6	710.7	695.5	688.4	684.8
37.5°	687.5	678.6	663.4	655.4	650.1
40°	655.4	645.6	631.3	623.3	617.1
42.5°	621.5	612.6	596.6	588.5	584.1
45°	587.6	577.8	563.6	552.9	549.3
47.5°	552.0	543.1	528.8	517.2	513.6
50°	517.2	507.4	494.0	482.4	478.0
52.5°	481.5	472.6	460.1	448.5	441.4
55°	443.2	437.8	420.9	412.9	405.7
57.5°	408.4	402.2	388.8	375.4	371.0
60°	372.7	365.6	353.1	341.5	337.1
62.5°	335.3	329.9	317.4	306.7	300.5
65°	299.6	293.4	280.0	271.1	265.7
67.5°	266.6	258.6	245.2	236.3	231.8
70°	228.3	222.0	211.3	204.2	199.7
72.5°	195.3	188.2	178.3	171.2	166.7
75°	158.7	154.3	145.3	139.1	135.5
77.5°	126.6	120.4	114.1	109.7	107.0
80°	94.5	90.1	85.6	81.1	79.4
82.5°	66.0	62.4	58.0	55.3	52.6
85°	39.2	37.5	32.1	30.3	28.5
87.5°	18.7	16.1	10.7	9.8	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)