

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: P242965

Luminaire Tested: **S121DR-H880D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242965
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-H880D935-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: 2837.9 lumens
Efficiency: N/A
Efficacy: 90.1 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

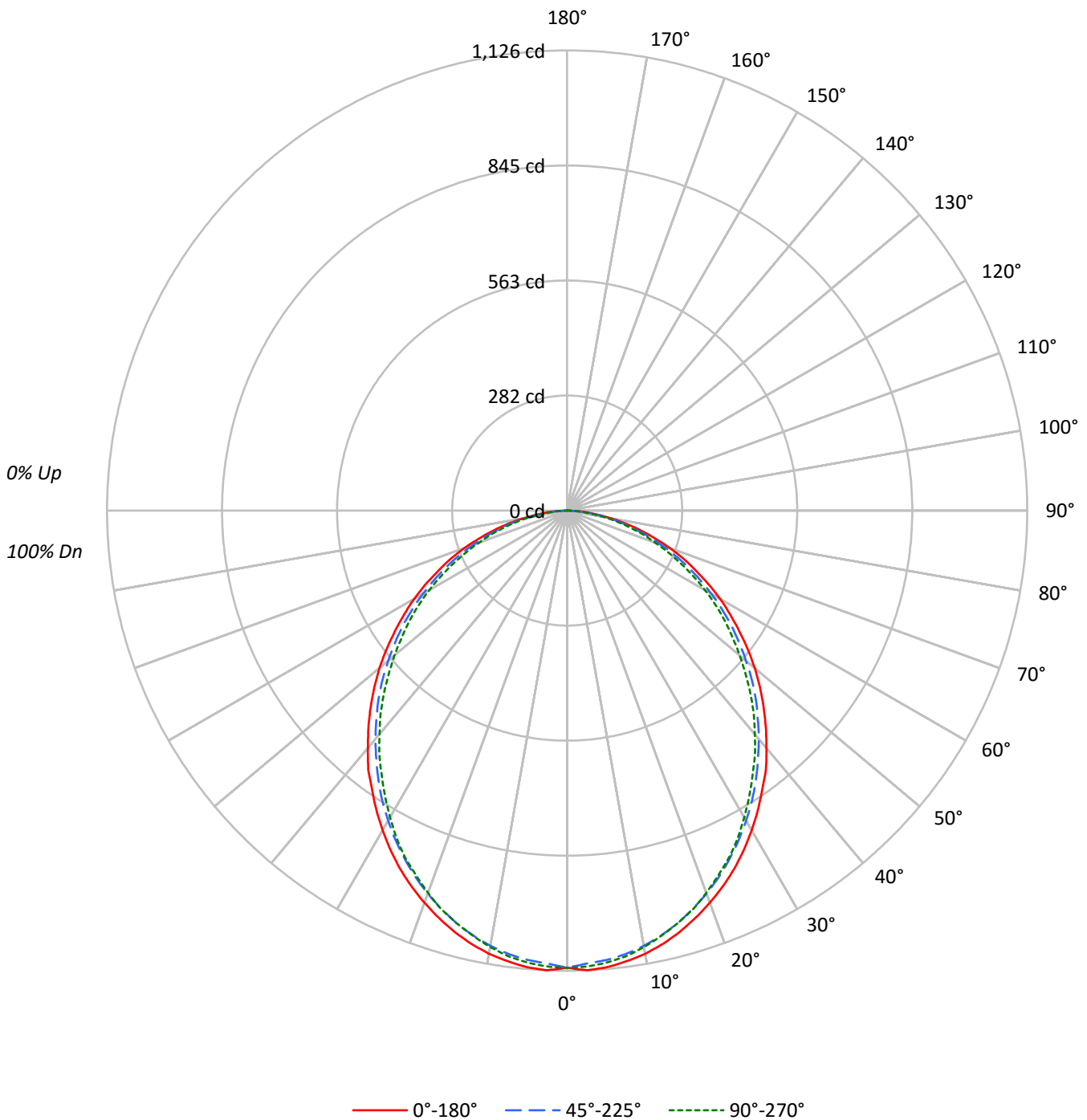
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33144	33144	33144
5°	33363	32839	33024
10°	33126	32533	32626
15°	32724	32055	32055
20°	32200	31446	31383
25°	31624	30741	30640
30°	30895	29971	29653
35°	30113	29136	28611
40°	29353	28232	27628
45°	28498	27367	26587
50°	27621	26330	25422
55°	26562	25333	24367
60°	25618	24142	23099
65°	24349	22821	21587
70°	23079	21199	19847
75°	21122	19233	18042
80°	18394	16978	15749
85°	15876	13055	10913



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	3.7
10°-20°	296.6	10.5
20°-30°	436.0	15.4
30°-40°	506.0	17.8
40°-50°	504.7	17.8
50°-60°	439.4	15.5
60°-70°	323.4	11.4
70°-80°	180.1	6.3
80°-90°	46.3	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°	838.0	29.5
0°-40°	1344.1	47.4
0°-60°	2288.1	80.6
0°-90°	2837.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2837.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1122	1116	1104	1112	1110	106
15°	1067	1061	1045	1049	1045	301
25°	967	956	940	940	937	445
35°	832	822	806	796	791	521
45°	680	669	653	640	634	525
55°	514	505	490	477	472	460
65°	347	340	326	312	308	345
75°	184	176	168	161	158	196
85°	47	44	38	33	32	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.6	1118.6	1118.6	1118.6	1118.6
2.5°	1125.9	1119.7	1109.3	1118.6	1116.6
5°	1121.7	1115.5	1104.1	1112.4	1110.3
7.5°	1112.4	1107.2	1094.8	1102.0	1100.0
10°	1101.0	1094.8	1081.3	1087.5	1084.4
12.5°	1085.5	1080.3	1064.7	1069.9	1065.8
15°	1066.8	1060.6	1045.0	1049.2	1045.0
17.5°	1045.0	1038.8	1022.2	1025.3	1023.3
20°	1021.2	1012.9	997.3	999.4	995.3
22.5°	995.3	985.9	970.4	970.4	966.2
25°	967.3	955.9	940.3	940.3	937.2
27.5°	936.2	925.8	909.2	907.1	904.0
30°	903.0	892.6	876.0	871.9	866.7
32.5°	868.8	857.4	841.8	834.6	829.4
35°	832.5	822.1	805.5	796.2	791.0
37.5°	799.3	784.8	767.2	758.9	754.7
40°	758.9	746.4	729.9	718.5	714.3
42.5°	719.5	708.1	690.5	679.1	675.9
45°	680.1	668.7	653.1	639.7	634.5
47.5°	639.7	628.3	612.7	599.2	592.0
50°	599.2	587.8	571.2	557.8	551.5
52.5°	556.7	548.4	530.8	518.4	510.1
55°	514.2	504.9	490.4	476.9	471.7
57.5°	472.7	464.5	448.9	434.4	431.3
60°	432.3	424.0	407.4	395.0	389.8
62.5°	389.8	381.5	366.0	353.5	348.3
65°	347.3	340.0	325.5	312.1	307.9
67.5°	307.9	298.6	285.1	272.7	267.5
70°	266.4	256.1	244.7	234.3	229.1
72.5°	225.0	216.7	207.3	197.0	194.9
75°	184.5	176.2	168.0	160.7	157.6
77.5°	146.2	140.0	133.7	126.5	124.4
80°	107.8	103.7	99.5	94.3	92.3
82.5°	75.7	72.6	66.4	62.2	60.1
85°	46.7	43.5	38.4	33.2	32.1
87.5°	21.8	17.6	13.5	11.4	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)